

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1707.—Vol. XXXVIII.

LONDON, SATURDAY, MAY 9, 1868.

(WITH SUPPLEMENT) (STAMPED .. SIXPENCE, UNSTAMPED .. FIVEPENCE)

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1812.)

The Mining Share Market is in a position slightly advantageous to buyers, the range of prices being low, which should encourage investments, especially in first-rate dividend mines, and of the most eligible for permanency of dividends a list will be furnished on application of shares select in quality and moderate rate in price.

WEST GODOLPHIN are strongly recommended as an investment, the shares being now at a very moderate price, and the prospects of the mine most encouraging for further dividends.

SUMMER HILL.—These shares having ceased to be offered for sale, a re-action in their market value may be looked for. Mr. CROFTS may be consulted as to selling or holding the shares pending the next dividend.

Bankers: National Bank of Scotland, 37, Nicholas-lane, E.C.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—
50 Anglo-Brazilian, 11s. 6d.
50 Chontales, £25.
10 Colquhite and Callington United, 32s. 6d.
15 Clifford, £25.
25 Don Pedro, £25.
50 East Russell, 11s. 6d.
20 East Laxey, 3s. 6d.
40 East Carri Brea, 27s.
50 East Grenville, 37s. 6d.
100 Frontino (call paid), 12s.
50 Great Caradon (offer wanted).

SPECIAL BUSINESS in East Caradon, Marke Valley, Herodfoot, and St. John del Rey.

GUIDE TO INVESTORS.—THE STOCK, SHARE, AND FINANCE REGISTER for May contains a comprehensive review of the Stock and Share Markets; a list of all the dividends paid in April; a comparative estimate of the profits of the several descriptions of shares; a selection of investments paying 10 to 19 per cent.; and information for intending investors.—6d. per copy, or 5s. annually, post free. Published by Mr. BAKER LELEAN, at his offices, 11, Royal Exchange, London.

MR. WILLIAM WARD,
STOCK AND SHAREDEALER.
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C.

MR. WILLIAM SEWARD, STOCK AND MINING SHAREBROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MR. J. B. REYNOLDS, 70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C., STOCK AND SHAREDEALER.
Mr. REYNOLDS recommends the purchase of shares in sound tin mines, the working expenses of which are moderate—such as, for instance, WEST WHEAL KITTY or WEST ST. IVES, both these properties being certainly of more than ordinary promise, but the shares in which are low, because of exceptional circumstances.

WANTED TO PURCHASE—
5 Great Wheal Vor. 25 Colquhite and Callington United. 10 St. John del Rey. 110 Don Pedro. 300 West St. Ives. 20 West St. Ives. 10 Colquhite and Callington United. 20 West Wheal Kitty.
FOR SALE—
2 Carn Brea. 4 Levant. 10 Colquhite and Callington United. 20 West Wheal Kitty.
Mr. REYNOLDS beg to refer to his remarks on page 339.

Messrs. POWELL and MOSS, SHAREDEALERS, 72, OLD BROAD STREET, LONDON, E.C., and Mining Exchange, have large transactions in Prince of Wales, North Trekerby, Frontino, North Crofty, Chiverton, Chiverton Moor, and West Chiverton. Parties dealt with at a fair margin on the market price.

References exchanged.
Bankers: City Bank, Finch Lane.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 43, THREADNEEDLE STREET, LONDON, E.C.
Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1½ per cent. on mining and other shares, above 2s.; and at 2d. and under 6d. per share.

References given and required.
Bankers: London and Westminster, Lothbury.

MR. E. M. MANUEL BEAZLEY,
STOCK AND SHAREDEALER.
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
Member of the Mining Exchange.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 13 years), has FOR SALE the following shares, at net prices:—
25 Wh. Chiverton, £25. 25 E. Gunnislake, 25s. 50 Pestarena, £2 11s. 3d.
25 Calbeck Fells, 12s. 15 East Russell, 17s. 10 Ost Tor, 12s. 25 West Kitt, 11s.
25 Gawton, £25. 25 Frank Mills, 15s. 25 Frontino, 12s. 25 E. Carri Brea, 27s. 9d.
20 Wh. Grenville, 37s. 6d. 10 Gt. Retallack, £25. 20 E. Carri Brea, 27s. 9d. 20 South Darren, 30s. 9d. 30 So. Condurrow, 8s. 6d. 20 Prosper Unit, 11s. 3d.
30 Chontales, £25. 20 E. Henricetta, £25. 40 Gunnislake (Clit), 20s. 25 Prince of Wales, 50s. 9d. 5 Clifford, £5 11s. 3d. 15 Chiv. Moor, £6 6s. 6d.
BUYER of Summer Hill shares at market price.

MR. H. WADDINGTON, SHAREDEALER, 77, OLD BROAD STREET, LONDON.

H. W. is instructed by two responsible persons to offer the following shares in St. John del Rey at reduced rates for future delivery. Any sale effected failing satisfactory references will be guaranteed by a deposit from the seller, the same being expected from the buyer:—
10 or 20 shares, for end of June, at £19 per share.
10 or 20 shares, for end of July, at 18½
10 or 20 shares, for end of August, at 18½

MR. Y. CHRISTIAN, ENGLISH AND FOREIGN STOCK AND SHAREDEALER, 6, BOND COURT, MANSION HOUSE, E.C.

MR. Y. CHRISTIAN'S "FINANCIAL GAZETTE" should be consulted with a view to the safe employment of capital. It contains Original Articles, and a comprehensive review of the Stock and Share Markets. Also, particulars of the best paying investments of the day, including Banks, Railways, Insurance, Mines, Docks, Gas Companies, and a Selection of Investments paying 10 to 20 per cent. on outlay. To trustees, shareholders, and intending investors it will be found a very valuable publication, and should be consulted by those who have an interest in the state of the money market.

MR. CHRISTIAN embraces the present opportunity of urging his clients and the investing public generally to obtain an interest in the NORTH LEVANT MINING COMPANY at once. The shares are remarkably cheap, and the present time offers a good opportunity for realising immense profits, whether the shares are bought as an investment or to sell again.

6, Bond-court, Mansion House, London, E.C.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), has FOR SALE at net prices:—25 West Kitt; 50 Crebor, 2s. 6d.; 5 North Crofty, £25; 15 Chiverton Valley; 5 Wheal Grenville, 37s. 6d.; 10 Wh. Kitt; 5 Maes-y-Safn; 50 South Grenville, 6s. 6d.; 100 West St. Ives; 50 Colquhite and Callington, 32s. 6d.; 40 Anglo-Italian; 20 East Carn Brea, 23s.; 5 Great Wheal Vor, £18½; 150 Redmoor; 10 Rose and Chiverton; 50 Cuddra; 20 Gawton; 60 Anglo-Brazilian, 11s.; 20 Prosper United, 11s. 6d.; 50 Rosa Grande.

SPECIAL BUSINESS in Miners' Devon Great Consols, South Caradon, Chiverton Valley, Drake Walls, Pendern, North Retallack.

CORNWALL AND DEVON MINES.—

FOREIGN GOLD MINES, &c.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, May 8, No. 478, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines:—
West Great Work. Frontino and Bolivia.
Wheal Trelawny. Prince of Wales. St. John del Rey.
North Wheal Crofty. Drake Walls. Don Pedro.
East Wheal Seta. West Caradon. Anglo-Brazilian.
Great Wheal Vor. South Frances. Rosa Grande.
Chiverton. Frank Mills. Wye Lead Mines.
With Remarks on the Tin Trade, &c., &c.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, 1s.; by post, 2s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER, 79, OLD BROAD STREET, LONDON (three doors only from Hercules-passage, entrance to the Stock Exchange) (Twenty-three years' experience.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

MR. EDWARD COOKE, FOREIGN AND BRITISH MINING SHAREDEALER, 79, OLD BROAD STREET, LONDON, E.C.

SHARES in all the Gold Mines, and also those in British Mines, DEALT IN, at close market prices, either for cash or fortnightly settlement. Satisfactory references given in any town in the United Kingdom. A daily list of prices sent free on application.

MR. W. H. CUELLO, (late of the firm of WATSON and CUELLO), HAS REMOVED TO 42, CORNHILL, LONDON, E.C.

JOHN WILLIAM HUTCHINSON has instructions to SELL the following shares at net prices:—
1 Botallack 20 Don Pedro, £1 18s. 9d. 20 North Crofty, £2 11s. 3d. (offer wanted). 10 Gt. Retallack, £2 8s. 9d. 5 West Caradon, £25. 2 Caroll, £20s. 20 Grenville, 35s. 3d. 10 Wh. Chiverton, £2 11s. 3d. 20 Chontales, £25. 25 No. Trekerby, 18s. 9d. 2 West Chiverton, £25. 10 Chiverton Moor, £25. 10 Old Westminster 20 W. Godolphin, 21s. 6d. 5 Clifford, £25. (offer wanted).

Holders of mining shares desirous of realising are assisted in so doing (free of charge) by communicating as above, stating number and lowest cash price. J. W. H. is always in a position to effect exchanges of shares at close market prices.

OFFICES—31, THROGMORTON STREET, CITY, E.C.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.

T. R. can recommend three mines sale for a great rise within the next three months. Money advanced to any extent upon good mining shares. Bankers: Bank of England.

MR. G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C., TRANSACTS BUSINESS in LEAD, MONTGOMERYSHIRE LEAD and STOCK EXCHANGE SECURITIES, MINING and FINANCIAL ENTERPRISES, at close market prices.

MR. SANDY points with satisfaction to his remarks in last week's Journal, and is pleased to know that a few took advantage of his recommendation, and purchased shares in the undertaking referred to. Mr. S. has now to announce a further improvement in the mine, and does so in the confidence that he may still be consulted by more of his clients.

Correct Daily Price List can be had on application. Money advanced to any amount on legitimate stocks and shares. References exchanged.

MATTHEW GREENE, STOCK AND SHAREDEALER, 1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

The shares in the following mines are worth buying at the present prices:—Tynagh, Lead, Montgomeryshire Lead and Barytes, New Clifford. Full particulars of the above on application.

Bankers—Metropolitan Bank, Cornhill, London. Tweedy, Williams, and Co., Redruth, Cornwall.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER, AND FINANCIAL AGENT, No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS, as a BUYER or SELLER of SHARES, in West Godolphin, Snaefell, Uny, Don Pedro, and Summer Hill.

E. J. BARTLETT is always in a position to deal at the closest market quotations, and having agents in the mining districts, can advise and direct intending investors and others as to the merits of any mining property.

Shares in Banks, Railways, Hotels, and Finance Companies, bought, sold, or exchanged.

Information, &c.

MR. JAMES HUME, STOCK AND SHAREDEALER, 74, OLD BROAD STREET, LONDON, AND MINING EXCHANGE.

Every description of shares BOUGHT or SOLD for cash or account. Shares continued for responsible parties, from account to account, at market prices.

WHEAL MARY FLORENCE (Limited).—This mine, from its position, and by force of discoveries, is likely to create much sensation. Its success being already assured, full particulars may be had by applying to Mr. J. HUME.

Established Fourteen Years.

Messrs. WARD AND JACKMAN, SHAREDEALERS, CUSHION COURT, OLD BROAD STREET, CITY, E.C.

Members of the Mining Exchange, London.

Closing prices, Friday Evening, May 8:—

Carn Brea	25s.	17	to 19	Prince of Wales	50s.	to 52s. 6d.
Chontales	25s.	17	to 19	South Wheal Frances	18	to 20
Chiverton Moor	25s.	17	to 19	St. John del Rey	19	to 20
Clifford Amalgamated	25s.	17	to 19	Tineroft	14½	to 15
Cook's Kitchen	10½	to 11	14½	West Chiverton	64	to 65
Don Pedro (pm.)	17½	to 18	22½	West Caradon	5	to 6
East Caradon	4½	to 4¾	22½	West Wheal Seta	20	to 21½
East Grenville	32s. 6d.	to 37s. 6d.	22½	Wheal Basset	60	to 65
East Laxey	8½	to 9	22½	Wheal Buller (call pd.)	9	to 11
Frontino and Bolivia	8½	to 9	22½	Wh. Emily Henrietta	37½	to 40
Great Laxey	16½	to 17½	22½	Wheal Grenville	32s. 6d.	to 37s. 6d.
Great Retallack (c. pd.)	2	to 2½	22½	Wheal Mary Ann	21½	to 22½
Great Wheal Vor	16½	to 17½	22½	Wheal Seta	77½	to 82½
Herodfoot	38	to 41	22½	Wheal Trelawny	8	to 9
Marke Valley	6½	to 6¾	22½	Wheal Uny	2	to 2½
North Trekerby	2½	to 2¾	22½			
North Wheal Crofty	2½	to 2¾	22½			

Messrs. WARD AND JACKMAN are DEALERS in all the above at the close market price of the day.

Messrs. WARD AND JACKMAN beg to refer to their remarks on page 339.

Messrs. WARD AND JACKMAN will forward a correct list of closing prices and statistical information GRATUITOUSLY on application.

May 8. Bankers: London and Westminster, Lothbury.

INVESTMENT, LOAN, AND BANK AGENCY. Established 1839.

INVESTMENTS in PUBLIC SECURITIES may be effected by payments at intervals to suit the convenience of the buyer, upon advantageous terms. LOANS granted, for one year or any shorter period, and renewable, if required, on Stocks and Shares having a market value.

FIVE PER CENT. INTEREST allowed upon DEPOSITS of all amounts withdrawable at one month's notice.

Bank and Finance Agency Business generally undertaken. RICHARD TAYLOR AND COMPANY. No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. CHARLES THOMAS, MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER, 3, GREAT ST. HELEN'S, LONDON, E.C.

Second Edition, price One Shilling; post-free, fourteen stamps.

MINING FIELDS OF THE WEST: A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON. Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, transact business in all kinds of securities at closest net prices for cash or account. SPECIAL BUSINESS in East Caradon, Snaefell, Great Laxey, and Minera shares, for cash, or the fortnightly settlement.

Daily price list on application. Bankers: London and County Bank.

MR. HENRY MANSELL, STOCK AND SHAREDEALER, No. 44, THREADNEEDLE STREET, LONDON, E.C.

References Exchanged.—Member of the Mining Exchange. Bankers: London Joint-Stock Bank.

SAFE PROFITABLE INVESTMENTS. Dividends, 10 to 20 per cent. per annum on outlay.

INVESTORS, SHAREHOLDERS, CAPITALISTS seeking reliable information and safe investments, should read

SHARPS' INVESTMENT CIRCULAR (post free). GRANVILLE SHARP AND CO., SHAREDEALERS, 32, POULTRY, LONDON, E.C.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLEBURY, LONDON, E.C.
Business transacted in every description of securities at closest market prices, free of commission.

We recommend the immediate purchase of Lovell Consols, Great South Chiverton, East Chiverton, Great Laxey, and Tamar Valley shares. Particulars and price on application.

Our "Investment Circular and Financial Record," forwarded post free on application. Bankers: London and Westminster Bank.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS, 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

J. S. and Co. are SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted prices, net:—

Anglo-Brazilian, 15s.	Great Wheal Vor, £17 10s.	Tineroft, £15.
Bedford Consols, 12s. 6d.	Great Laxey, £17 5s.	West Frances, £27 10s.
Carn Brea, £18 10s.	Gt. North Down, £17 6d.	West Chiverton, £24 10s.
Chontales, £2 15s.	Lucy Phillips, £5 5s.	West Caradon, £5 10s.
Chiverton Moor, £6 7s. 6d.	Marke Valley, £6 17s. 6d.	West Drake Walls, 9s. 6d.
Chiverton Valley, £4 10s.	North Down, £1 5s.	W. Pr. of Wales, 10s. 6d.
Clifford Amal., £5 12s. 6d.	North Trekerby, £1.	West Wheal Seta, £210.
Drake Walls, 10s. 6d.	North Crofty, £2 10s.	Wheal Basset, £6s.
Don Pedro, £2 14s.	Okel Tor, 16s.	Wheal Tor, £10 10s.
E. Carn Brea (call paid), £1 5s.	Pestarena, £2 12s. 6d.	Wh. Chiverton, £2 7s. 6d.
East Grenville, £1 10s.	Port Phillip, £1½.	Wheal Grenville, £1 15s.
East Russell, £1 (call pd.)	Prosper United, 10s.	Wheal Mary Ann, £22.
East Caradon, £4 15s.	Rosa Grande, 11s. 5d.	Wheal Kitty (St. Agnes), £2 12s. 6d.
East Lovell, £5 13s. 9d.	South Darren, £1 12s. 6d.	Wh. Trelawny, £5 7s. 6d.
Frontino, 12s. 6d. (call pd.)	St. John del Rey, £19 10s.	Wheal Uny, £2 2s. 6d.
Gawton, £25.	South Frances, £25.	Yudanumutana, £2 2s. 6d.

Money advanced on marketable mine shares at 5 per cent. per annum. Buyers can have transfers registered prior to payment, if desired, on giving respectable references.

J. S. and Co. having in their employ several of the most experienced and trustworthy mine agents in the United Kingdom, who periodically inspect on behalf all the bona fide mines in Devon, Cornwall, and Wales, are able to accord to their friends and clients reliable advice as to the present and future prospects of mines they deem worthy the attention of investors.

References will be given to the Alliance Bank and the Bank of England.

MR. EDWARD BREWIS, PALMERSTON BUILDINGS, 34, OLD BROAD STREET, LONDON, E.C., has for sale free of commission, for cash or account:—20 Chontales, £25; 100 Redmoor, 2s. 9d.; 1 West Seton, £20s; 10 Clifford, £25; 30 Don Pedro, £25; 1 Devon Great Consols, £450; 10 Chiverton, £25; 50 West St. Ives, 5s. 6d.; 15 Chiverton Moor, £25; 50 East Russell, 15s. 9d.; 100 Glan Alun, 7s. 3d.; 150 West Godolphin, 16s. 6d.; 10 North Roskear; 15 West Kitt, £5; 20 North Trekerby, 18s. 9d.; 5 St. John del Rey, £19; 25 Great Rosemor, £5; 35 North Crofty, £25; 100 Frontino, 11s. 3d.; 150 Harwood, 10s. 3d.; 10 West Chiverton, £65; 50 Piece of Wales, £25; 100 Tyn Head, 1s. 9d.; 25 South Darren, £15; 50 Lucy Phillips, £5; 25 Steele Acton, £7½; 15 Chiverton Valley, £4½; 50 West Cornwall Granite, £3; 30 Postarena, £25; 100 New Lovell, 19s. 6d.; 100 Lovell Consols, 7s.; 25 Sao Vicente, ¼ prem.; 5 Rosecliff and Tolcarne, £5; 20 Rosewarne United, 5s. 6d.; 50 Wheal Mary Florence; 1 Wheal Seta, £75; 50 Mining Association, 15s. 6d.; 10 Maes-y-Safn, £26½; 2 Minera, £168; 5 East Seton, 17s. 9d.; 50 Princess of Wales, 3d.; 10 New Birch Tor, 6s. 9d.; 10 Whitwell, £16½; 20 Rosa Grande, 16s. 6d.; 10 North Levant, £29½; 15 East Caradon £24½; 20 Great Laxey, £17.

CHONTALES GOLD COMPANY.—FULL PARTICULARS OF THE DIFFERENT CLASSES OF SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austin Friars, E.C.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER (Member of the Stock Exchange), No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE.

Transacts business in Railways, Funds, and every description of Mines. Bankers: Messrs. Lambton and Co.

MR. R. TREDINNICK, CONSULTING MINING ENGINEER, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.

MR. THOMAS THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

Mining, Railway, and other Shares bought, sold, or exchanged. Shares for sale in mines and quarries that will pay 15 to 20 per cent. per annum. Offices, 5, Finsbury-street, London, E.C.

MESSRS. THOMAS BONNER AND CO., MINING AGENTS, MINERAL SURVEYORS, AND SHAREBROKERS, LLOYD STREET, MANCHESTER.

Messrs. THOMAS BONNER and Co. having been engaged in mining pursuits and the management of metalliferous mines for upwards of twenty years, their experience enables them to give their clients the soundest advice. They are always in a position to negotiate for the buying and selling of mineral properties in all parts of the world; and they also undertake the floating of companies for working such properties, if the bona fide prospects, after careful investigation, meets their approval.

T. B. and Co. are also dealers in every kind of mining shares, and having an extensive connection are generally able to deal in shares difficult of sale in the open market, and invite transactions from holders of this kind of stock. N.B.—Money advanced on mineral properties and mining shares.

MESSRS. BEOR AND KENRICK, MINING ENGINEERS, EXCHANGE BUILDINGS, BIRMINGHAM.

Messrs. BEOR and KENRICK undertake the purchase of mining property of every description, the survey of estates and mines at home and abroad; collieries and mineral property carefully inspected and reported upon; contracts entered into for mining plant, &c.

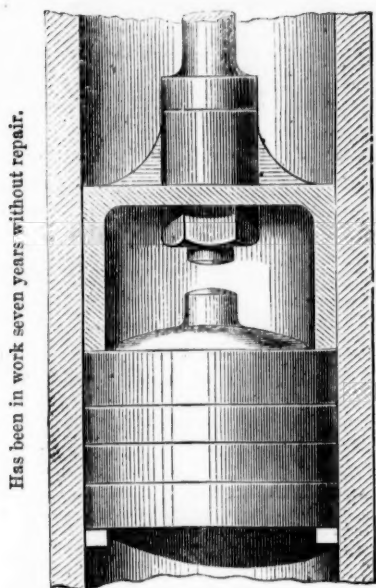
MR. JAMES STOCKER, PALMERSTON BUILDINGS, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C., STOCK AND SHAREDEALER in all kinds of Stock Exchange and Mining Securities.

Established Twenty Years. Money promptly advanced on shares. Bankers: London and Westminster, Lothbury.

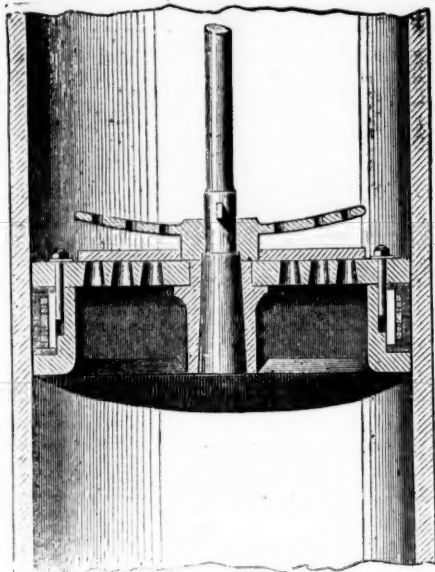
MATHER AND PLATT

MILLWRIGHTS, ENGINEERS, AND MACHINE MAKERS,

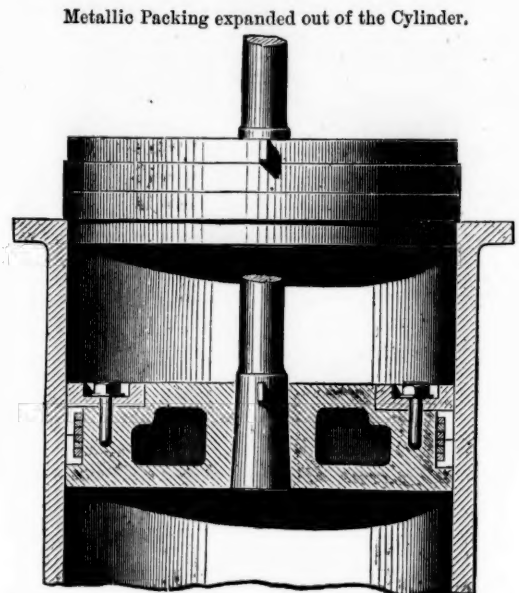
SALFORD IRON WORKS, MANCHESTER.



COLD WATER PUMP FOR DEEP LIFTS.



AIR-PUMP BUCKET.



PISTON IN THE CYLINDER.

MATHER and PLATT beg to call the attention of ENGINEERS and USERS of STEAM POWER to their PATENT PISTONS, AIR PUMP BUCKETS, and COLD WATER PUMPS. The estimation in which these Pistons, &c., are held is shown by the fact that 4760 have been made, as well as by the following Testimonials from gentlemen whose large experience and extensive practice enable them to judge of their qualifications:—

"Bridgewater Collieries, Walkden, Bolton-le-Moors, October 26, 1867.

"GENTLEMEN,—During the last 19 years, commencing in 1848, I have put in upwards of 33 of your patent metallic pistons and pump-buckets, into 49 engines and 20 pumps, under my care at the Bridgewater Trustees' Collieries. I can bear testimony to the very efficient and economical working of the same, and feel confident that with ordinary care they will give general satisfaction, wherever brought into use, possessing, as they do, many practical advantages over other pistons and buckets, being simple, durable, and effective. I have one piston (No. 671) which has been working daily for more than 15 years, one (No. 1586) 10 years, and one (No. 2246) over 7 years, without cost of repairs or trouble of any kind, except occasional cleaning. The smooth and highly polished condition of the cylinders during this length of time convinces me that the action of the metallic packing is so equable and perfect as to render the piston steam-tight and self-adjusting, without producing any appreciable friction. I have had two of your patent metallic pump-buckets working daily for over seven years, one lifting 300 feet, and one 348 feet, and both are yet performing good duty. I am now putting in one of 10 inches diameter patent buckets, to work 10 strokes, of 8 feet 4 inches per minute, under a pressure of 12 atmospheres, and feel confident of success, thus showing the superiority over other buckets, more especially where long lifts and simplicity are required. I herewith hand you an order for a 53-inch diameter piston and rod complete, also air-pump bucket, 26½ inches diameter, and rod complete. Hoping you will forward the same to these collieries as early as practicable,

"Messrs. Mather and Platt, Salford Ironworks, Manchester."

"I remain, Gentlemen, yours very respectfully,

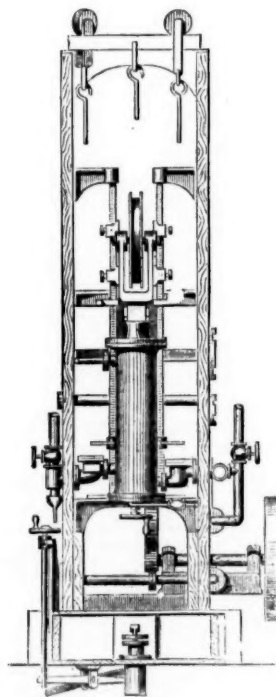
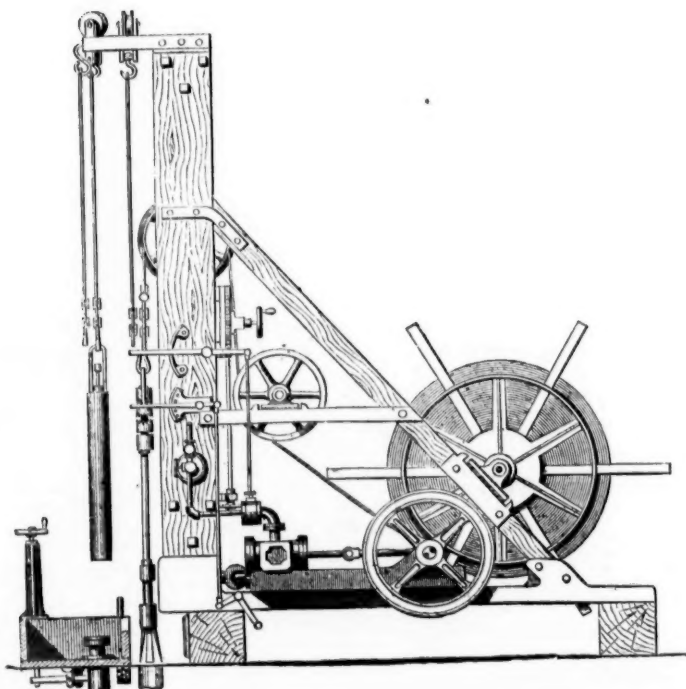
"JESSE TIMMINS, Colliery Engineer."

"Frampton Cottrell, near Bristol, October 31, 1867.

"GENTLEMEN,—I have ordered direct, or included in specifications of engines which I have prepared, upwards of 100 of your pistons and buckets, between the years 1850 and 1867, and I feel convinced they are the best pistons that have come under my notice, and if any proof was wanting as to my opinion of them, it may be found in the fact of my ordering the last 70 inch piston from you for our present works.

"I remain, Gentlemen, yours truly,

"WILLIAM BAILEY."



M. and P. beg to call attention to their Revised List of Prices of VALVES, TAPS, &c. They also request the notice of Water Companies and Hydraulic Engineers to their IMPROVED SLUICE VALVES for Water. The slides have Gun-metal Facings, are of Wedge form, and when screwed down are tight on both sides:—

GUN METAL TAPS.			CAST IRON STEAM VALVES, WITH GUN METAL VALVES AND SEATINGS.			CAST IRON SLUICE VALVES, WITH GUN METAL FACINGS.		
Bore. Inches.	Price. £ s. d.		Bore. Inches.	Price. £ s. d.		Bore. Inches.	Price. £ s. d.	
1/2	0 4 0		2	1 2 6		2	1 10 0	
3/4	0 4 6		3	1 17 6		3	2 5 0	
1	0 6 0		4	2 15 0		4	3 0 0	
1 1/4	0 8 6		5	3 15 0		5	3 16 0	
1 1/2	0 11 0		6	4 17 0		6	4 14 0	
1 3/4	0 14 0		7	6 0 0		7	5 14 0	
2	0 18 0		8	7 5 0		8	6 16 0	
	1 2 6		9	8 15 0		9	8 0 0	
			10	10 10 0		10	9 6 0	
			11	12 5 0		11	10 14 0	
			12	14 0 0		12	12 4 0	
			14	20 0 0		14	15 10 0	
			16	27 0 0		16	19 4 0	
			18	35 0 0		18	23 6 0	
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						22	32 14 0	
						24	38 0 0	
						26	43 14 0	
						28	49 16 0	
						30	56 6 0	
						32	63 4 0	
						34	70 10 0	
						36	78 4 0	

The attention of those interested in Metallic Mining is called also to an

IMPROVED BUDDLE,
OR
ORE WASHING MACHINE
Which they believe will be found of great benefit

Improved Patent Earth Boring Machines

A considerable number of these Machines has been in most successful operation for some years in exploring for minerals coal and the boring of Artesian wells, for supplying many towns, manufactories, &c., with water. Upwards of 50 bore-holes, from 6 in. to 24 in. diameter, representing in all 20,000 ft. of boring, have been sunk in various parts of the world, through rocks of every form and degree of hardness, from the New Red Sandstone to the Igneous formations, as well as Chalk and the London Clay.

The Machine is worked entirely by steam-power, requiring a small boiler, from 6 to 12 horse power, according to diameter of the bore-holes. The framing is made of wood, to render the Machine of easy transport.

The rate of boring is not appreciably decreased as the depth increases, as a flat rope is used in place of rods in the old system.

TERMS AND PARTICULARS CAN BE HAD ON APPLICATION.

Meetings of Mining Companies.

UNITED MEXICAN MINING COMPANY.

The half-yearly general meeting of shareholders was held at the offices, Great Winchester-street, on Wednesday.

Mr. CHARLES MORRIS in the chair.

Mr. W. M. BROWNE (the secretary) read the notice convening the meeting, and the minutes of the last meeting were confirmed.

The report of the directors (an abstract of which appeared in last week's JOURNAL) was taken as read. It showed that the excess of expenditure on the 12 months amounted to £10,032, which included the sum of £18,123 expended in the mines of La Osa district. Operations have been conducted on an economical scale, and Mr. Furber assures the directors that the expenses in all branches are gradually being reduced to the lowest figure consistent with the proper development of the concern. The operations for the year at the Mine of Jesus Maria (after crediting the respective accounts with the proportion of the profit of £4865 realised in the quarter ending June) resulted in a loss of £12,600. The greater portion of the loss was incurred in the first division of the year. In the second the result was much less unfavourable, notwithstanding the high price of provender and the other articles of consumption. The expenditure in the mines in the Guadalupe de la Osa district during 1867 was £30,082, and the value of silver produced amounted to £11,959, leaving the sum of £18,123 to the debit of the mines. The operations in this district have been directed chiefly to El Carmen, where a considerable amount of work has been done during the past year in clearing out old workings, ventilating and exploring the ground. The works carried on with the object of communicating with the shaft of El Oro, in Encinillas, were, after some difficulty, completed in December last, when the clearing of the shaft from the surface was commenced to obtain ventilation. In February the shaft was clear to the cross-cut of El Progreso, at a depth of 33 metres, and good ventilation secured, but required timbering, which was being gradually done in an economical manner. The same causes which have been much felt in this district, but, as the ore had improved in El Carmen, more hands were coming in. Although ore ground is being gradually opened in these mines at different points, the directors are somewhat disappointed that no discovery of importance has yet been made. The completion of the works of ventilation above mentioned will facilitate the exploration of the ground to a greater extent than has hitherto been possible. The operations for the year at the reliction works yielded a profit of £32,574. The same causes which have been much felt in this district, viz., the high price of corn and straw—also kept down the profits under this head. With regard to the current year, Mr. Furber states that it has commenced under more favourable auspices, and that better results may be expected. The proprietors were, at the extraordinary general meeting, held on March 25 last, made fully acquainted with the measures adopted for extending the operations of the company in Mexico; and the directors, acting in conformity with the resolution then unanimously passed, sent out instructions to Mr. Furber, empowering him to complete and ratify the contract which he had entered into provisionally with the owners of the mines in connection with the adit of San Cayetano. At the same time, Mr. Furber was authorised, as soon as he obtained possession of the new property, to draw on London for funds, in order that the works may be pushed forward with all possible vigour.

The CHAIRMAN proposed that the report be received and adopted. Since he last had the pleasure of addressing the proprietors the work at the mine of Jesus Maria had steadily progressed, the haciendas having been kept well supplied with ore, and there was no doubt there would be considerable returns from that mine for a long time to come. The ore continued to yield well, although at the date of the last report it was not quite so good. There was always, however, fluctuations in the value of all mineral veins, and, therefore, there was no cause to be despondent because of a temporary decline in the value of the ore from the mine of Jesus Maria. From the Osa district, too, the last report was hardly so favourable as the directors could have wished; but in the last two years they had yielded a progressive return, that of 1866 having been £2924, while in 1867 it amounted to £11,959, so that the expenditure upon those mines was beginning to produce a favourable result, and there was every reason to hope that the returns would ultimately be of a very remunerative character. At any rate, it was a property with regard to which Mr. Furber had expressed the most favourable opinion. He would now move that the report be received and adopted.—Mr. PALGRAVE seconded the proposition, which was put and carried unanimously.

Messrs. John Phillips and Chas. Morris, the retiring directors, were re-elected. Mr. Palgrave was re-appointed an auditor, and Mr. W. Turquand was appointed the second auditor.

An extraordinary general meeting was then held.

Mr. CHARLES MORRIS in the chair.

The CHAIRMAN said this meeting had been convened for the purpose of submitting the following resolution:—"That a call of 2s. 6d. per share be, and the same is hereby, made on all the shares of the company." The matters relating to this call had been so recently fully discussed that any further observations from him upon the present occasion were rendered altogether unnecessary. He would, therefore, move that the resolution be adopted.

Mr. PALGRAVE seconded the proposition.

A PROPRIETOR wished to know if the board possessed the power to charge an interest upon the calls not paid when due?—Mr. BROWNE read the clause in the Articles of Association bearing upon the question, from which it appeared that the holders of shares upon which a call remained unpaid after the date the amount became due were liable to be charged interest at the rate of 5 per cent. annum. He would, therefore, move that the resolution be adopted.

The resolution was then put and carried unanimously.

A vote of thanks was passed to the Chairman and directors.

The CHAIRMAN, on behalf of the board and himself, acknowledged the vote, and expressed a hope that they would have a good account to render at the next meeting. (Hear, hear.) The proceedings then terminated.

GAWTON COPPER MINING COMPANY.

A general meeting of shareholders was held at the offices of the company, Austinfriars, on Thursday.

Mr. CHIVERTON in the chair.

Mr. E. KING (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

A statement of accounts, made up to the end of February, showed a credit balance of 1867. 8s. 11d.

The report of the agents was read, as follows:—

May 5.—We beg to hand you our report of this mine, for the general meeting to be held on the 7th inst., showing the position of your property, and the amount of work effected during the past four months. The new engine-shaft has been sunk, and a tip-plat cut 12 ft. long, 11 ft. wide, and 5 ft. deep below the 70, and is now in regular course of sinking by six men below that point. The 70 fathom level cross-cut has been extended 1 ft. 2 in. through the capels, and intersected the main or north part of the lode, on which the 70 west has been driven 7 fms. 3 in. on the north side of the lode, yielding in value from 1 to 5 tons of ore per fathom; the lode in the present end is worth 2 tons of ore per fathom. At this point the lode is intersected by a small cross branch, consequently a little less in value, which we regard as temporary; judging from its promising appearance we have reason to think that this point will again improve to its former value, or above, in some short distance further driving. The 70 east is being driven on the same part 2 fms. 2 ft. from cross-cut, where the lode is improving in character, yielding 1½ ton of ore per fathom. The middle part of the lode has been laid open some 3 fms. east and west of cross-cut, which is chiefly composed of hard capel and very strong mundle, impregnated with yellow copper ore, but not sufficient to value. The winze below the 60 has been sunk 6 fms. 3 ft. 4 in. on the course of the lode, yielding a little ore, and communicated with the 70, which has thoroughly ventilated the bottom part of the mine. The 60 east is extended from cross-cut 28 fms. 2 ft. 7 in., principally through hard capels, with a leader part on footwall of the lode, yielding in places from 1½ to 2 tons of ore per fathom; the last 3 fms. of this driving has been through a good lode, worth from 3 to 5 tons of good quality ore per fathom, or from 12½ to 20½, and showing a very healthy appearance for continuance. We regard this discovery of ore as a very important feature, believing it to be a continuation of the great bunch of ore first discovered at the 36; consequently, to prove it in depth, a winze is being sunk on its course, now down about 8 ft., where the lode is further improved, being 4 ft. wide, yielding from 5 to 6 tons of ore per fathom. The 50 east is resumed by six men, and will be pushed on with all possible vigour, to intersect the shoot of ore dipping from the 36 to the 60, which we calculate is some 4 or 5 fathoms in advance. From the back and bottom of the different levels throughout the mine 158 fms. 4 ft. 3 in. of ground have been stoped away, exclusive of driving, rising, and sinking, giving an average value of about 3 tons of copper ore per fathom, including a considerable quantity of this ground in the back and bottom of the 50, west from Moore's winze, where at the last general meeting our prospects were exceedingly cheering, and showing every characteristic of opening out a lasting and continuous course of ore in depth; but to the great disappointment of all, even the best mining authority who had previously inspected the mine, I very much regret to say that the great course of ore, then yielding 10 and 12 tons to the fathom, did not continue beyond 12 ft. below the level in that direction, but in all probability has taken a westerly dip very fast, and may be found at the 60, in connection with the course of ore recently discovered there. The western shoot of ore, direct north from the new engine-shaft, which was first discovered at the 50, and found to exist in places 14 fms. long, has been principally stoped away from the 40, down 3 fms. below the 60. At this depth the lode became of little value, coming in contact with some hard floors upon which is also enlarged, making the whole necessary erections at the new mine available for all purposes on the burrow of rubbish, without creating any unnecessary expenses in damage of lands. Under present circumstances, we think it will be most advisable to confine the present operations to sinking the engine-shaft to a deeper level, drive the 70 both east and west, drive the 60 east, and continue sinking the winze below. Also continue the driving of the 50 east, towards the run of ore ground, and put a winze taking away. To carry out this work it will require a monthly cost of about £270½, and if our present prospects continue, and improve, as we have every reason to expect, including the available ground to be worked on tribute, we hope to make sufficient returns to meet the current monthly cost, excepting sinking the engine-shaft. We have towards the next sampling about 70 tons of copper ore already dressed, and about 175 tons of sulphur and arsenical mundle.—GEORGE ROWE, GEORGE ROWE, Jun.

The CHAIRMAN moved that the report be received and entered on the minutes, and that the accounts be passed and allowed. The re-

port plainly pointed out the position and prospects of the mine, and all he need state was that, upon receiving the resignation of the late pursuer, the committee succeeded in engaging the services of a most competent and experienced gentleman—Mr. Moses Bawden—who resided in the locality of the mine, and who had desired any information additional to that contained in the report. Mr. King would be glad to afford it.

Mr. ROWLANDS said that, although the operations of the four months embraced in the accounts had not produced the same satisfactory results as during the preceding four months, arising from the fact that the lode at Moore's winze had unexpectedly fallen off, yet he was glad to find by the accounts that there was a balance on the right side of the account, and what was of still greater importance, that the lode at Moore's winze was still in the position of justifying the belief that the outlay in connection with the further development of the property would be met by the returns of ore.

Mr. KING explained the manner in which the rich shoot of ore had suddenly failed, but expressed a confident belief that it would again be met with equally productive upon further exploration. In the 60 fm. level the lode was worth 20½ per fathom; that, however, was some 40 fms. west, and was no doubt the same shoot of ore that had been discovered in the 36 fm. level. The winze sinking below the 60 was worth 6 tons of good ore per fm., and the 70 east was showing indications of entering a run of ore. The 70 west had intersected the first shoot of ore from King's shaft. Therefore, he felt justified in stating that the present prospects were of a most encouraging character. As far as the tut-work operations were concerned—that is, driving ends and sinking winzes—they were never so productive as at the present moment. There was no doubt if the present prospects continued that in a few months hence the reserves would gradually become a considerable amount of dividends.

A SHAREHOLDER considered the report just read much more cheering than the statement of accounts.—Mr. KING, in reply to a question, stated that from the surface to the 70 fm. level the lode in places was unexplored, and he believed a great course of ore would be found at the points now in operation.

A SHAREHOLDER asked whether it would be necessary to make a call? Mr. KING replied in the negative, stating that there was a credit balance of nearly 200½; irrespective of any improvement that might take place in the mine during the current four months the loss would not exceed 200½. Should any improvement take place there would be no loss whatever. He might mention that Capt. Bennetts had recently inspected the mine. Capt. Bennetts regards the present points of operation as of the utmost importance, and believes that the shoot of ore, which had so unexpectedly fallen off by the interposition of a hard bar of ground, would be again found when certain explorations had been made. As far as he (Mr. King) was concerned, he had no doubt whatever that would again become a profitable mine. There was no prospect whatever of a call being required.

The report was received and ordered to be entered on the minutes, and the accounts were passed and allowed.

The committee of management were re-elected.

The CHAIRMAN stated that had the committee the most remote idea that the course of ore which at the time of the last meeting was yielding such large returns would have fallen off so considerably, they would not have recommended the declaration of a dividend. But he believed that they would soon be in a position to resume the payment of dividends.—The proceedings then terminated.

MINES ASSESSMENT BILL.

In the House of Commons on Wednesday, Mr. WYNDHAM rose to move the second reading of this Bill, by which he proposed to secure an equitable distribution of local taxation. At present the natural objection to taxes of every description was augmented and the opposition to any proposed increase of local taxation was made more earnest in consequence of the inequality with which the rates were imposed. The special grievance he proposed to correct consisted in the fact that property yielding 6,000,000, a year paid nothing to the local rates throughout England, and the grievance was in no wise diminished by the anomaly that the law in force in England did not apply to Scotland or Ireland. Very little would be needed to show how unjust it was to exempt the mines from the payment of local rates, and how it contributed to parish expenditure. A mine in full work in any district drew into its neighbourhood a large number of workmen, for whom dwellings defective in all sanitary arrangements were hastily built, and if, as often happened, the mine became exhausted or fell into disuse from any other reason a large number of those workmen and their families became more or less a burden to the parish, notwithstanding their employers had contributed nothing in the days of their prosperity to the parish purse. Of 324 parishes in a Union in a mining district he found that only 52 were of the agricultural class—the rest had all been miners. Then, again, great injury was done to roads by the carting of heavy ore from the mine to the railway, yet these roads had to be repaired at the expense of the farmers and shopkeepers, while the owners of the mines were altogether freed from liability to contribute. Without further dilating on this point he proceeded to explain the provisions of the Bill. The first clause proposed that all mines should be rated as if they were land, and the clause required some amendment, because the net annual value of a mine was never paid; it would be paid if the lessee entered into possession of the mine with its plant all fixed, the shaft sunk, and the whole mine ready for work; but that was never the case. The royalty paid by the lessee of a mine resembled the rent which would be paid by a farmer under a 30 years' lease of a piece of moor land; and the net annual value of a mine resembled the net annual value of that piece of moor land after it had been drained and brought under cultivation. He contended that inasmuch as a piece of reclaimed moor land was assessed at its improved annual value, a mine in full operation should be also assessed according to its worth. The second and third clauses also required amendment, and he appealed to the hon. member for Durham (Mr. Pease) to assist him in coming to some satisfactory arrangement with regard to the deductions which should be allowed in estimating the net annual value of mines. He himself favoured the proposal to leave some part of the hands of the local assessors committed, but these matters could be easily settled in committee. Respecting the exemption of mines in Derbyshire, Cornwall, and Devon from the operations of the Act, he stated that the mines of Derbyshire were already rated in accordance with a local arrangement which satisfied everyone concerned, including the parish authorities and the ordinary ratepayer, an arrangement which it would be unwise to disturb. The mines of Cornwall and Devon were by no means exempted from the payment of local rates, but the occupiers of those mines from liability to transfer it to the owners, and to assess the rate on the royalty paid by the lessee. If, however, it was deemed unjust to treat one portion of the kingdom different from another, he would have no objection to exempt from liability all mines whose success was doubtful. The sixth clause, providing for the assessment of mines under the provisions of the Local Government Act or any local improvement Acts, in the same way as arable land was assessed, he proposed to make prospective only. As the principle of the Bill had been readily assented to he would not further detain the House, but formally move the second reading. (Hear.)

Mr. ST. AUBYN seconded the motion.

Mr. PEASE had no objection to the rating of mines, but contended that the amendment should be conducted in accordance with a fixed system applicable to all mines. A return made on the motion of the hon. member for Whitley (Mr. Bagnall) showed how utterly opposed to reason was the practice which had grown up in respect of the rating of coal mines. (Hear.) The third clause, relating to the deductions to be made from the gross value to find the net rent, seemed adapted to give rise to the same irregularities; it would be far better if a definite rate of deduction were fixed for all purposes. He also objected to clause 5, as far as it set up a different standard for different countries. No doubt the miners of Cornwall and Devon deserved every consideration the House could give under the circumstances; but it would be very unfair if they were relieved altogether from liability to pay local rates. As, however, ordinary principles of assessment were not applicable to miners, he would suggest that an increased deduction should be allowed in the case of mines commercially hazardous.

Mr. DENHAM reminded the House of a more general grievance arising from the unequal assessment of the highway rate, and hoped the whole question of assessment would be fully brought before the House by the Government at no distant day.

Mr. KENDALL objected to clause 5, and promised strenuous opposition to it. All those in Cornwall interested in mines had agreed it was fair mines should be rated, and he knew of only one person who should bear the charge. The hon. member must not think he was going to carry his bill and leave the Cornish people in the lurch; he, for one, would insist upon abiding by the recommendations of the Select Committee, which had reported on the matter.

Mr. BRUCE pointed out that although the Bill was approved in principle it was not sufficiently complete in itself. Formerly, above all things, was needed; if deductions from gross value were to be allowed in the case of copper and tin mines, why should they not be allowed in the assessment of coal mines? It seemed to him to be monstrous that a tin mine in full operation and producing well should be rated on more favourable terms than a coal mine. He did not insist that it should be rated for all years on the estimate of any one year, but that a fair average should be struck for the assessor's guidance. (Hear.) The hon. member who introduced the Bill had committed himself to a very clear statement of an important point arising out of clause 6. The effect of that clause would be that coal mines, which are now rated to their fullest extent, would be assessed at only one quarter of their annual value. That seemed to him a very doubtful measure; he had always approved the principle laid down by Sir G. Lewis, that all exemptions for rating purposes were impolitic; and for this proposed exemption in favour of coal mines he could imagine no reason whatever. If anyone wished to find a district where the roads were bad, where small, ill-built houses abounded, and pauperism was chronic, let him go to a colliery district. The colliery drew around it a large population of the poorest description, and it should be made liable to pay local rates as much as any other property. Trusting that these points would be considered in committee, he had no objection to the second reading of the Bill.

Lord G. CAVENTISH said, respecting the wish for uniformity of assessment, that the difficulty of dealing with the fifth clause as far as it effected Derbyshire could be appreciated only by those who knew what a happy state of things existed there in consequence of the agreement already referred to. The mines of Derbyshire had always been rated. The assessment was made on the royalty paid to the Duchy of Lancaster, and the rate was paid by the Duchy, so that the parish actually got more from the mines than it would get if the occupier were rated, because the poorer miners would of necessity have to be excused. He suggested something in the nature of a Bill for compounding mining rates; if that could be managed the Derbyshire arrangement might stand.

Mr. BAGNALL could not understand why plantations were exempted from liability to pay rates. Formerly they were excused in order to promote the growth of timber for the Royal Navy, but this would not be sufficient excuse now.

Mr. CANDLISH complained that if the 6th clause were to be more prospective new mines would be assessed at one-fourth their value, while old mines would be rated at their full net rental. He cautioned the hon. member who had charge of the Bill against those who urged him to permit deductions, but a limit that some allowance should be made for the exhaustion of the corpus.

Mr. COBRANCE thought the hon. member deserved the thanks of the House for bringing the matter forward, and he approved the principle of the Bill; but he complained with reference to the whole subject of rating that the principle had yet been fixed on by the Legislature as the basis for any rate at present existing. The law had come into its present state by a course of for-

tuitous legislation and accidental judgments, and the sooner it was thoroughly examined and remodelled on a definite principle the better it would be for all concerned. He hoped on an early day to call the attention of the House to the subject.

Mr. VIVIAN agreed that it would be desirable to rate all mines on the same principle without exception. The principle of assessment in South Wales at present was most unjust. Coal mines in that district were rated on profits; in no other trade was this principle followed, and in the case of mines it was especially unjust, because the corpus of the mine was being continually exhausted. When coal had been won it might very properly be regarded as stock-in-trade, so that not only were profits rated, but the stock-in-trade, which had been purchased by the outlay in plant and all the preliminary work of sinking the shaft, was rated as well. This was extremely unjust, and on this account, if for no other, he desired to see some principle laid down. (Hear, hear.) But the Bill seemed to propose the rating of other mines on no fixed principle. The first clause did not accord with the second, and in both royalty seemed to be confounded with rent, though it was well known these two things were very much differed. If the principle were to prevail at all it ought to be made applicable to all mines.

Mr. FUGH had great pleasure in voting for the second reading of this Bill, as, independently of its other recommendations, it was founded not only on the report of the Select Committee of the House of Lords, which resolved that it was expedient that all mines should be assessed, as coal mines now were, inasmuch as their exemption from rates was founded on no sound principles, but it was in accordance with a strong opinion expressed by a court of law of high authority—the Court of Exchequer Chamber, in the case of "Crease v. Sawley." They said that the statute of Elizabeth was, in truth, framed with a view to render rateable all occupiers of every description of real estate, and it might be very questionable whether occupiers of mines of any description were exempt at all. Therefore this was a beneficial Bill, as framed for the purpose of putting an end to legal doubts, and it was also founded on justice; and if in committee it should be proposed, as had been already suggested in the course of the discussion, that its principle should be extended to other kinds of property—plantations, for example—he should be very happy to give the subject his favourable consideration. (Hear.)

Mr. WYLD thought that the principle laid down in clause 6 of the Bill ought to be adhered to.

Mr. BEAUMONT said that those who were connected with the North would offer every opposition to any privileged exemption in favour of a particular district.

Mr. P. WYNDHAM thanked the House for the manner in which the Bill had been received. Nothing could give him greater satisfaction than that the Government should take it out of his hands. He should attend to the suggestions of his right hon. friend the member for Merthyr Tydvil and his hon. friend the member for Glamorganshire.

The SOLICITOR-GENERAL hoped the hon. member (Mr. P. Wyndham) would confine himself for the present to bringing in mines which had not hitherto been rated, and not attempt to alter the general definition of rating. If the hon. gentleman did so he would give him every assistance in his power. The Bill was then read a second time.

EXTENSIVE FRAUDS BY A SHAREBROKER.

Paul Raby, 52, a gentlemanly-looking person, described as a share-broker, of Redruth, Cornwall, was indicted, at the Surrey Sessions, on Wednesday, for unlawfully obtaining two bills of exchange for 500£, each, about 170£ in cash and other securities, from Major Thomas Ross, by means of false and fraudulent pretence; he alleging that he had the lease of the Wheal Emilly Silver Mine, in Cornwall, whereas no lease had been granted to him by the freeholder.

Mr. Sleight, specially retained with Mr. Oppenheim and Mr. Bradford, appeared for the prosecution; and Mr. Daley, specially retained, with Mr. W. E. Clarke for the prisoner.

The prosecutor was a retired major in the army, residing on his property, Kilravoch House, South Norwood. In the early part of the year he desired to invest some money in mining shares, and in March the prisoner put himself in communication with him, representing that he was the possessor of the Wheal Emilly Silver Mine, in the parish of Callington, Cornwall. About the end of the month the prosecutor, believing the prisoner to be a gentleman, invited him and his wife to spend a day or two at his house as his guests, and he was induced to purchase 215 shares of the prisoner, for which he gave him a bill of exchange for 215£; about the same time he bought 75 more shares, for which he gave him a cheque for 75£. He had previously purchased of Messrs. James Scott and Co., mining brokers, of Finner's-court, 150 shares, in January last, for which he had also given him a bill of exchange for 150£. The prisoner then advised him to purchase 100£ more, more he could secure it for his own advantage, and for which he advanced him money. Believing his story to be correct, he gave him another cheque for 100£. On the morning of April 1, while he was a guest of the prosecutor, he tapped his breast pocket and said, "Thank God, my mind is easy now, as I have got the lease here all right." He then advised him to take 1000 shares, telling Major Ross that if he did so he should be able to keep the public out of such a good thing. Miss Lloyd, a lady visitor, who had also been advised to purchase shares of the prisoner, was in the room at the time, and he told her he had the lease, and offered to show it her, but she declined to look at it. The prosecutor, putting faith in the prisoner's statement, and believing that he had the lease of the mine in his pocket, consented to purchase 1000 more shares at 1£ each, when the prisoner drew up two bills of exchange, and filled them up for 500£ each, and which the prosecutor accepted and returned to him. The prisoner then left him, and tapping his breast pocket, said, "I have got it here." He offered to take it out and show he had. Considering him to be a gentleman, she declined the offer. The prosecutor, believing that he had the lease about him, purchased 1000 shares, and accepted two bills of exchange for 500£ each.

Mr. James Thomas Snell, accountant, Cheapside, said he was on a professional visit at the prosecutor's in the end of March, when he saw the prisoner there. He spoke very largely of the Wheal Emilly Silver Mine of Cornwall, and wanted the major to purchase 1000 shares of him. Witness advised him not to do so. He also heard the prisoner say if he could get 600£ or 700£ he could obtain the lease on his own terms.

In cross-examination, Witness said that he understood that a bill had been filed in Chancery by Mr. Davies against Mr. Langford to obtain a lease from him, but it turned out to be of no avail. Evans was brother-in-law of the prisoner, and never had a bona fide share of the mine, or the means to purchase it. It was a conspiracy between them to defraud him out of his money.

Mr. Weston, clerk to Mr. Hicks, solicitor, said he filed the bill in Chancery for Davies, and received 40£ in (1½) shares in payment of the costs. Witness said these shares, but as soon as the fraud was ascertained he had to take them back and refund the money. He had never been paid the costs.

Miss Ann Lloyd, an old friend of the major and his family, said that she was staying there while the prisoner and his wife were on a visit on March 31 and following day. She was induced to purchase some shares of him. On the morning of April 1 the prisoner told her he had got the lease of the mine at last, and tapping his breast pocket, said, "I have got it here." He offered to take it out and show he had. Considering him to be a gentleman, she declined the offer. The prosecutor, believing that he had the lease about him, purchased 1000 shares, and accepted two bills of exchange for 500£ each.

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In cross-examination by Mr. Daley, the Witness stated he heard the prisoner say he had been compelled to file a bill to obtain the lease. He wanted the prosecutor to pay for the shares 1£ each, three-fourths in bills and one-fourth in cash. Witness cautioned the prosecutor not to purchase so many.

Ann Dawson, parlour-maid to the prosecutor, said she attended on the prisoner and his wife whilst they were guests at the house, and while waiting on them she heard the prisoner say if he had 700£ or 1000£ he could get the lease of the mine into his own hands. Major Ross then gave him a cheque for 100£. On the following day she heard the prisoner say he had paid the money, and had the lease in his possession; and, tapping his breast-pocket, said to Miss Lloyd—"Here it is, my dear." (Laughter.)

Mr. Daley addressed the jury at some length for the prisoner, contending that he had never said he had the lease, but was in litigation respecting it in the Court of Chancery.

The jury after a short consultation returned a verdict of "Guilty."

It was proved that the prisoner had been tried and sentenced to twelve months' hard labour at York for a similar offence, when

The learned Chairman sentenced him to five years' penal servitude.

CAPTAIN BEDFORD PIM.—An act of justice has at last been done by the Admiralty in the promotion of Commander Bedford Pim to the rank of captain. Before attaining the rank of lieutenant Capt. Pim served in all quarters of the globe, but this, his first step, came by seniority, and, moreover, he passed the best examination of his day at college. He volunteered, and was employed in three arctic expeditions, and was the connecting link of the north-west passage, saving from starvation and death the officers and crew of Her Majesty's ship Investigator, when hopelessly beset in the ice. He afterwards served with distinction in the last Chinese war, and was wounded and lost three operations, twice severely, once receiving six bullet wounds. Capt. Pim is favourably known as an author and writer of considerable ability. He has devoted much time, energy, and money during the last six years to his great project of opening a transit through Nicaragua, and which is now in a fair way of being carried out. In addition to this, Capt. Pim has taken quite a lead in the development of the commercial resources of Central America, and to his business ability and organization we are indebted for the successful introduction of more than one undertaking in that part of the world.—United Service Gazette.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending May 3 amounted to 11,365£ 11s. 8d.

DR. LOCOCK'S WAFERS FOR COUGHS, COLDS, AND HOARSENESS.—Letter received March 28, 1868, from the Rev. G. W. W. 36, Springfield-place, Leeds.—"Whenever in times of hoarseness, arising from cold or excess of public speaking, I have taken Dr. Locock's Wafers, I have invariably found relief." Dr. Locock's Wafers give instant relief to asthma, consumption, coughs, and all disorders of the breath and lungs. To singers and public speakers they are invaluable for clearing and strengthening the voice, and have a pleasant taste. Price 1s. 1½d. per box. Sold by all chemists.

HOLLOWAY'S PILLS—HEALTH'S FOUNTAIN.—It cannot surely be necessary to remind any intelligent reader that the purity of the blood determines every invalid's health and vigour. Holloway's medicine searches out the slightest taint in the vital fluid, and neutralises or expels it, so that the circulation supports the system in place of sowing the seeds of decay; when effluvia are advancing, and disease is steadily on the increase, it behaves even as a restorative like these pills ready to set right any irregularity in stomach, liver, bowels, or kidneys. Holloway's treatment is especially suitable for the young, delicate, and nervous, who are most susceptible of any prevailing sickness, and whom violent measures would endanger little less than the epidemic.

Original Correspondence.

THE NORTH STAFFORDSHIRE COAL FIELD—No. I.

SIR,—The lower coal measures crop out in the neighbourhood of the following places:—Longton, Adderley Green, Bucknall, Norton, Ridgway, Biddulph, Mowcop, Harecastle, Talke, and Silverdale. The dip is generally 15 inches per yard and upwards at the edges of the coal field, but towards the centre the dip is about 9 inches per yard. Near Mowcop there is a contrary dip, which constitutes another coal field. From Silverdale to Longton no coal is worked, and it is probably thrown down to a considerable depth at this point. The entire series of coal seams are numerous, ranging from 3 feet to 10 feet thick; the most of them produce a good proportion of large coal, but make much smoke and ashes in burning. The Birchwood and Holly-lane seams are, perhaps, the best adapted for house fires. The beds of ironstone (found chiefly in the upper portion of the series) range from 1 foot to 3 feet thick, producing first-class iron when smelted with Durham or South Wales coke, and part of their own coal; but the North Staffordshire coals are considered to be too weak and sulphury for furnace purposes, and much of the coal is coked for iron smelting, some in ovens, and some by the wasteful process of open clamps. At Biddulph, where there are three furnaces in blast, raw coal alone is used, but at most of the other works an admixture of coke and coal is used, in various proportions. At Biddulph, the gases from the furnaces are not utilised for heating boilers or stoves. At Shelton there are four furnaces (three in blast), where the gases are not utilised. At Etruria there are four furnaces (three in blast), where the system of utilising the waste gases is being introduced, and good results are expected from it. At Kidsgrove there are four furnaces, all in blast; two of these only utilise the gases, and from the process great saving of fuel has been effected. These furnaces have no cone or cover on the top of each furnace, but the gas is diverted from the furnace to the stoves, and underneath the boilers, by the aid of a tall chimney. The gas does all the heating work, not an ounce of coal being used, and the furnaces produce more iron than before the process was applied. Here the forges and mills are also in full operation, producing bar-iron, small rails, and heavy plates for shipping; large rails are not made here, nor, as a rule, at the other North Staffordshire works, being cut out in price by the South Wales ironmasters.

The pits in this coal field are generally sunk about 60 yards apart, on the line of dip, and it is common for one engine to work from four pits, at different depths. In the steeper measures the distance is greater. There is a want of railways at many of the collieries, some, producing as much as 200 tons of coal per day, send away the whole of their produce by carts. The pumping and winding-engines are nearly all on the same principle, the former being beam-engines, placed some distance from the pits, and connected with the pump-rods by the intervention of long connecting-rods and T-bobs, instead of having the cylinder or beam placed over the pit, as is done in most other districts. At Chatterley, where ironstone is worked at a depth of 300 yards, winding-engines of the most approved plan are to be seen; but at most of the collieries single horizontal cylinders, or beam-engines, with the winding machinery outside, are the rule. The mechanical appliances for hauling the coal by means of endless chains, at Bottleslow and Fenton Park Collieries, are well worth seeing.

There is a great want of railway accommodation at the Pottery towns of Tunstall, Burslem, and Hanley. Stoke and Longton are in close proximity to the railway. The North Staffordshire Company obtained an Act for a loop line to pass through the three first-named towns, but, seeing the project would be a ruinous one, are now backing out of it. The original line could, no doubt, have been brought much nearer to the three towns, and the stations of Burslem and Tunstall could have been placed in closer proximity than they are to those towns; the latter is about a mile further away from Tunstall than it should be.

The consumption of smoke has occupied the attention of the inhabitants of the Pottery towns of late, and there is great need that it should do, for everything outwardly is besmeared and blackened with smoke, giving an aspect to these towns and their inhabitants gloomy and miserable in the extreme. When the matter is thoroughly looked into, potters will find it to their interest to consume the smoke in their works, and improve the appearance of the lower class of dwellings.—May 7.

M. B. GARDNER.

TREVENEN AND TREMENHEERE MINES.

SIR,—I have been requested by the lord of these mines to furnish him with a statement of the work done during my six years' management, that he may have a record of the same for himself and family. Having had free access to your valuable medium for the publication of my reports heretofore, I once more ask you kindly to grant me space for the thorough publicity of the following statistics of these mines during my agency. There may be others who would be curious enough to know what has been done, and it might be satisfactory to the shareholders and community at large.

We have examined the books, and the account is as follows (omitting feet and inches):—Sunk shafts, 145 fms.; in winzes, 144 fms.; driven on the course of the lode, 270 fms.; in stopes, 2200 fms.; in cross-cuts, 140 fms.; and nearly 200 fms. clearing old shafts and levels; making a total of nearly 4000 fms. of ground. And this is not all that has been accomplished, for much more has been wrought at per bargain, which must be easily understood by every practical miner. Perhaps a report of this sort is seldom published, but having ascertained these facts, through your kindness, we publish it to the world, and further, there may be a few among the numerous readers of your widely-circulated Journal, especially so if they have heard or known anything of the working of these mines under Capt. T. Martyn 60 years ago, who would like to keep this record as a memorial of the past, and hand it down to succeeding generations. May 5.

JOHN MEDLEN.

NEW TRELAUNY MINE, AND ITS MANAGEMENT.

SIR,—I have noticed that a good deal has been said in your valuable Journal about the above mine, which is situated near this town. The mine has been reported on favourably by different agents, and I think myself that the sett is worthy of a trial, but the method of working, with their power, is nothing less than ruinous to the shareholders. I find they have a portable engine, better known as a puff-engine and coal-consumer, which I am told costs for engine, coals, oils, and grease nearly £50. per month to keep the engine going; besides, the engine is worked to the extent of its power, which will stop their sinking deeper by this means. If the proprietors of the mine would put in a suitable stationary engine, and spend in their underground operations what is now being wasted by keeping the puff engine at work, then I think the chance of success would be much greater in finding a good mine, which just now is needed by us in our district. My object in troubling you in this matter is to point out one instance of how the money of mining capitalists is got rid of, which too often brings bad repute on mining generally. A MINER.

Callington, May 7.
[For continuation of Original Correspondence see the Supplement to this day's Journal.]

ROPE TRADE.—Messrs. Garnock, Bibby, and Co., of the Swan Rope Works, Liverpool, say:—We have now to advise a reduction of 2½ per ton in price of tarred hemp and Manila rope. Russian hemp holders have been much out of their calculations of consumption this spring, owing to the substitution of other hemp for purposes which Russian hemp has generally been used for, general depression in trade, and the falling off in shipbuilding in North America. Consumption has been very small, consequently the market has taken quite a different turn to what was generally expected. Manila hemp, having recently arrived in good quantities, a number of parcels being consequently thrown on the market at once, has depressed this article also, but as there is not now much on the way for this country, we think the depression will be temporary.

NEW APPLICATION OF COPPER.—Mr. Wiederhold proposes as a new application of copper the manufacture of a new green copper by mixing a neutral soap of linseed oil with a salt of copper in solution, or by combining directly the fatty acid of the oil with oxide of copper. A paste of a fine green colour is thus obtained, which may be immediately employed for calico printing, &c. It can be diluted with spirit of turpentine or benzole until it has acquired the necessary degree of fluidity.

PAPER BELTING.—The experiment of making belting from paper has proved a success in the hands of Crane and Co., at Dalton, Mass., and the article is now used in all their own mills, and several other manufacturing establishments. The belting resembles the genuine oak-tanned leather, and serves alike well in a dry or damp atmosphere.—San Francisco Mining and Science Press.

THE GIFFARD INJECTOR.—Probably no mechanical contrivance in general use has more puzzled practical men from its apparent opposition to natural laws than the very useful little instrument known as Giffard's Injector. The explanation of the principle of action as given by Mr. Robinson, of Manchester, is that the pressure on all parts of the interior of steam-boilers being equal, some reason must be sought why steam taken from one part is able to overcome the resistance opposed to its entrance in another part of the same boiler. If a pipe conveying steam were turned directly back into the water of the same boiler, it is evident that equilibrium would ensue and no effect be produced. If, on the other hand, a break were made in the continuity of the pipe, so as to leave an interval open to the atmosphere, steam would rush from one pipe and water from the other in the boiler, with a velocity proportioned to their different densities. In constructing the injector, the feed-water chamber is placed at the break in the pipe, and this arrangement accounts for the power of the steam to overcome the resistance to its entrance into the receiving pipe of the boiler. The jet of steam, being concentrated on the water, forces its way through the interval

surrounded by feed water, by contact with which it is gradually condensed, and reduced in volume and velocity, until it is entirely converted into water at the throat. In doing so, it imparts to the feed-water a velocity proportioned to the pressure in the boiler and its own temperature; and, the water being non-elastic, it acquires sufficient momentum to overcome the resistance in the water space of the boiler.

FOREIGN MINING AND METALLURGY.

The slight improvement reported of late in the Belgian coal trade is maintained, and the deliveries have continued active, by water as well as by railway, during the last few days. The hesitation of many firms is, however, not yet removed, and long-terminated contracts are only concluded with difficulty. Prices remain low, and without variation. The direction of the company for working the Netherlands State Railways and the Liège and Limbourg lines has published a statement with reference to a complaint made, that the tariffs adopted favour the conveyance of coal from the Ruhr basin, to the detriment of Belgian coal. The direction observes:—"The Netherlands Company having the greatest interest in promoting the importation of Belgian coal into Holland, has adopted a series of measures in order to stimulate the conveyance of the coal of the Liège basin towards the Campina, the Limbourg, and North Brabant. Thus, for example, in order to interest the agents of the company in the disposal of Belgian coal, it grants a discount to station-masters in the Campina and in Holland for each truck of Belgian coal which arrives at their stations; it also grants commissions out of the transport rates charged to colliery agents who undertake to 'place' in Holland a certain quantity of Belgian coal. If, notwithstanding all the sacrifices which the Netherlands Company has imposed on itself in order to create outlets for Belgian coal in Holland, Belgian collieries do not succeed in doing so, the result must be attributed to the very high prices at which coal is quoted in Belgium, as compared with the rates current for German coal." The condition of the Belgian metallurgical markets is considered to be decidedly better, with the exception of pig, which remains neglected. The rolling-mills have been receiving of late a good current of orders for merchants' iron and plates; and if some affairs in rails can be carried through satisfactorily, Belgian firms will be freed from uneasiness for some months to come. Several important contracts for rails in course of negotiation at present; among others, one for the railway centre of France, the Government is also to be made with a direct line from Charleroi to Brussels, via Luttre. The Turin Colliery Company commenced the payment on Friday of a dividend of 8s. per share. Meetings are announced as follows:—Silesian Zinc Mines and Works Company, May 9, at Breslau; Royal Asturian Mines Company, May 11, at Brussels; Crachet and Piquery Collieries Company, at Frateries; Herve-Wergifosse Collieries Company, May 11, at the offices; United Collieries Company, May 14, at Brussels, &c.

There is little change to note in the position of French metallurgical industry; with the exception of some orders to meet current wants, the works have not much on hand. Prices are so depreciated and so subject to variations that it is difficult to establish precise quotations. The following rates may, however, be noted as current at St. Dizier:—Charcoal-made pig, 44.4s.; rolled iron from coke-made pig, 67.16s. to 74.4s.; ditto from charcoal-made pig, 84.16s.; mixed ditto, 84.4s. to 87.12s.; and pig made from charcoal, 92.12s. clear. A circular has been issued by the Minister of Public Works with regard to the new regulations as to imports by warrants; it has provoked fresh complaints on the part of industrialists, who appear to be but little satisfied with the course pursued by the Government. Fresh memoirs and protests have been drawn up in all the French groups, asking for the suppression, pure and simple, of the warrant system, and the abandonment of the treaties of commerce on their expiration. At an adjudication for 1500 tons of pig-iron from the French lines the prices proposed by the competitors were not in any case below the maximum prescribed by the administration, and no lot was let. Foreign works, it may be remarked, were not admitted to this competition. The Bouches-du-Rhône Collieries Company commenced the payment on Friday of a half-yearly coupon of 12s. Meetings are announced as follows:—Manbeuge (Nord) Blast Furnaces Company, May 10, at Valenciennes; Moselle Colliery Company, May 16, at Paris; Franche-Comté Blast Furnaces, Foundries, and Forges Company, May 16, at Besançon, &c.

The total quantity of gas sold by the Belgian General Company for Lighting and Heating by Gas—which has works at Arras, Bergues, Cambrai, Catanz, Charleroi, Chemnitz, Dunkerque, Fournies, Herstal, Louvain, Marchienne-au-Pont, Prague, Rimini, St. Omer, Sienna, Tournai, and Valenciennes—during September, October, November, and December, 1867, and January, February, and March, 1868, was 226,879,293 English cubic feet, as compared with 224,245,233 English cubic feet in the corresponding months of the previous year. The Prussian and Ironworks Company, the head-quarters of which is at Düsseldorf, has just decided on the issue of a third, fourth, and fifth series of its shares. The Anchy-au-Bols Mines Company has decided on increasing its capital to 99,080l., divided into 4954 shares. M. Mary, Inspector (of the first-class) of bridges and roads, has been appointed President of the New Council of Administration formed.

Advices from Havre reported a few days since some important purchases of disposable copper, at 76l. 10s. to 77l. 12s. per ton. The sale was also mentioned of 100 tons to be delivered by a ship expected in England at the commencement of July, at 78l. 10s.; and of 45 tons May 15, at 78l. Since then, however, the market has become more quiet, and no very striking transaction has been mentioned. At Paris, Chilian in bars is quoted at 77l. 10s. to 78l.; ditto in ingots, 81l.; and Corocoro minerals, 80l. per ton. The ports made as to the German copper markets are satisfactory, the article finding an easy outlet at present rates. At Berlin, Cologne, and Stettin there is no variation to notice in prices. There has been a return of activity on the Rotterdam tin market, 2000 ingots of Banca having changed hands at 55 1/2s.; operations speedily acquired increased animation, and sellers promptly raised their pretensions. The sale was successively noted of 800 blocks of Banca at 55 1/2s., 2000 blocks at 55 1/2s., 700 blocks at 55 1/2s., and 1700 blocks at 56 1/2s. Billiton has also hardened in price, and has been quoted at 55 1/2s. Prices of other tin have been irregularly fluctuating, Banca making 98l., Straits 97l. 12s., and English 98l. per ton. At Marseilles the article has displayed a good tendency, Banca making 96l., and English in sheets 100l. per ton. On the German markets tin has been dealt in currently at previous rates. Transactions in lead have been restricted, and have been almost exclusively limited to current wants; nevertheless, notwithstanding the persistent calm which prevails, the article displays some firmness, and on some markets it even presents a slightly upward tendency. There is nothing remarkable in the price of zinc; the various markets continue quiet, and the transactions concluded present little importance.

MINING IN NEVADA, U.S.

[From our Correspondent.]

For several days past the rumour is rife that there has been a rich discovery of gold made in the south-eastern part of the State. The new district is called Brygogle, and is located near the notorious "Death Valley," close to, or at, the exact spot where the fabulously rich "lost gold mine" was said to be situated. A man by the name of Brygogle several years ago claimed to have discovered in the vicinity of "Death Valley" a ledge of gold-bearing quartz of unsurpassed richness, samples of which he was said to have exhibited to various persons in this State and in California. Brygogle frequently attempted to find the mine, from which he alleged he had been driven by Indians, but he was always unsuccessful. Its existence, however, has been believed in firmly by many prospectors. The reported placers are said to have been discovered by a party of men from Owen's River valley, who were prospecting the country lying to the eastward, and were rewarded by finding rich placers, about 150 miles east by south from Fort Independence. The gold occurs in reddish soil on the banks of a creek, which yields the value of 2 and 3 cents to the handful. As large an amount as \$11,000 in fine gold is reported to have been carried back to Fort Independence. Quite a number of persons from Kearsarge, Lone Pine, and Palmetto districts have gone to the new diggings.

The Silver Champion Mine, situated in the Philadelphia district, two miles north of Belmont, is likely to prove no exception to other good mines of the district. From the day of its discovery it has yielded ore of the richest quality, although the vein was so broken and smashed that it presented the appearance of a mass of debris, composed of limestone, clay, and quartz. This broken mass produced some large and choice specimens of horn silver; 5 tons of ore which was sent to Austin for reduction yielded between \$750 and \$800 of silver per ton. Other lots, ranging from 5 to 7 tons, have yielded from \$545 to \$500 per ton. A shaft has been opened and pushed down with but little or no interruption during the past year, and at a considerable depth a large and compact vein, well defined, between good walls, has been uncovered for some distance. The ore is of a different quality from that which was obtained in the debris near the surface; it will not yield so largely of silver, but is yet of a very high grade. Several tons of ore from this lower level is on its way to Austin for reduction. This mine is owned exclusively by J. R. Murphy and Robert J. Morill, who are likely to reap a rich harvest for their patient exertion and expenditure of money.

The New York and South Twin River Company's mill, located in Seneca district, between Silver Bend and Reville, has lately been making successful runs upon ore from the Mohaka, Silver Star, Crescent, and Mediterranean ledges. The last lot worked was 30 tons, which gave an average pulp assay of \$225 per ton. This result is sufficient to demonstrate the superior quality of the ore produced in the district. The mines at the district, although only slightly developed, can produce enough ore to justify the erection of a larger mill, for during the last half hundred of tons were transported to the mill at Hot Creek for reduction, a distance of 20 or 40 miles. This, in connection with Reville district, is a good point for the erection of a large custom mill, as it is estimated that with the present development of these districts the mill could rely upon receiving monthly from 300 to 400 tons of good paying ore. To this supply may be added a considerable amount which would be hauled from several contiguous districts. In addition to the above-mentioned mines of these districts may be mentioned the Adullic, Sweepstakes, Sunny South, Essex, Amazon, New Hope, Desert Queen, Adriatic, Fisherman, and Knickerbocker. Several of the above ledges have been opened to various depths by inclines, and in most of them the appearance of the mineral deposit is excellent. The mineral occurs generally in limestone, which holds frequently as rich and permanent deposits of silver ore as either granite, slate, or porphyry. In some parts of the district veins are found to exist in granite, and a few in porphyry. From the surface down to the varying depths which have been attained a considerable number of the claims produce ore of a higher grade than the average of the best districts in the State.

In Fabranagat, several companies are engaged in mining with vigour and sys-

tem. The developments on the List ledge, which is the great and principal one in the district, are enough to sustain active and large operations. The moment Ostrom's Mill begins to produce bullion, an event which is expected with the liveliest interest, it will lead to increased efforts in mining by many whose claims have long been idle. The Alameda Company, which owns a portion of the List ledge, is also engaged in converting the five-stamps mill of the Crescent Company into an efficient ten-stamps mill, which will be furnished with reverberatory furnaces, and improved means for amalgamation. The prospect for success never looked so encouraging as at present. The Knickerbocker Mill, at Lone, is again at work with good success, having produced over \$4500, being the result of the first three days' run on ore from the Indianapolis ledge; regular shipments of bullion from this point may be confidently relied on.

PUDDLING IRON AND STEEL.*

With a view to elucidate the various metallurgical operations connected with the manufacture of iron, and to facilitate the understanding of the properties of the iron and steel made, two treatises, which cannot fail to prove of the utmost utility to practical men, have just been translated by Mr. A. A. Fesquet, of Philadelphia. The paper of Mr. Urbin is a prize essay, read before the Association of Engineers, Graduates of the School of Mines of Liège, Belgium; whilst that of Mr. Brull is an extract from the Memoirs of the Society of Civil Engineers, Paris. Mr. Urbin's treatise is divided into six sections, dealing with the theory of the puddling process, the physical characteristics of slags, means for changing the chemical composition of slags, the influence of the fuel on the working, the influence of the furnace on the working, and puddlers' work respectively. The operation of puddling, Mr. Urbin observes, may be divided into five periods—the fusion and the purification of the pig-iron, the refining for and the carburising of the grain, and the refining by flame—each of which he carefully describes; he explains the action of cinder on pig metal and on iron, the department of pig-iron, and the formation of the refining slag. With regard to the means for changing the chemical composition of slags, he points out the importance and mode of studying the flame of the furnace, and of making mixtures of pig metal best calculated to produce a desired result.

Referring to the influence of fuel on the working, Mr. Urbin observes that the puddler must be able to produce at will an oxidising or a reducing and carburising flame whose action extends over the whole surface of the bed. The false meaning of the words hot and cold, which constitute nearly all the technical language of the puddler, has given rise to the construction of furnaces and fire-places which are far from answering the object. A great heat is evidently necessary on many occasions, but if the production of a high temperature were the only thing needed, it could be accomplished in a much more economical way than is usually done. By the words hot and cold, the puddler means the state of the bath, and not its temperature. Thus, for the puddler, a basic and ferrous slag is hot, a ferric or acid slag is cold, even when both are at the same temperature. Bituminous coals give a hotter slag, because under the action of the heat of the fire-place they distil a quantity of gases, and thus easily reduce the ferric oxide. These acids carry with them a great deal of coal-dust, which, by re-acting on carbonic acid, elongates the flame and carburises the iron; while the carbonic acid, which is in too large proportions in the flame of close-burning coal, changes and burns the iron. We see, then, that it would be sufficient to introduce into the flame of close-burning coal a certain quantity of carbonic oxide, or coal-dust, to elongate its flame, and derive from it as much advantage as from a bituminous one for puddling and re-heating. But as long as we have no convenient apparatus for that we must vary the dimensions of the different parts of the furnace according to the quality of the fuel we have at our disposal. The process employed by the puddler of allowing the fire-door to be partially open in order to introduce continually small quantities of coal into the fire-place is absurd indeed.

After describing the influence of the furnace on the working, Mr. Urbin proceeds to give hints which will be very useful to the practical puddler. Having pointed out the care to be observed in preparing the material in the furnace for the final operation of refining by flame, he remarks that this latter, which does not take place for steel, and is of short duration for fine granular iron, will be somewhat protracted when a fibrous and perfectly homogeneous iron is required. The workman must then divide the mass several times with his crowbar, and expose all parts to the action of the flame, which must be reducing rather than oxidising. An expert puddler can go faster by working with a flame slightly oxidising, but the iron will be often hot short. If in this case the man is unskilful there will be much waste, the mass of iron will become hard outside, will be very difficult to divide, and there is no longer a possibility of manufacturing a homogeneous iron. To hasten the refining by the flame, the puddler will sometimes bleed his furnace—that is, tap part of the slag during this period of the working; it is a bad practice, which produces much waste and an inferior iron. The balls of fibrous iron may remain a certain length of time in the furnace, but the flame must be reducing, and they must be rolled in the slag. When beginning his balls, the puddler must take as the nucleus the most refined iron, in order that the least refined may remain a little longer to be acted upon by the flame. He must weld together the hottest and most refined parts of the iron, and put on top those which are cold and not quite refined.

The conclusions arrived at are that the puddling process must remain in use, notwithstanding the new processes of Bessemer and others. The former is a general operation which applies to all kinds of pig-iron, the latter purify only by air or oxidising agents; they have a great value in certain cases, but do not succeed except with very pure metals, which require only to be deprived of their silicon and their excess of carbon. If sulphur and phosphorus exist in the metal they remain there. Already, in order to obviate this difficulty, it has been proposed to add certain substances which combine with silica and other impurities, thus forming a slag. It will, therefore, be a purifying by air and by slags, or a puddling process performed in different apparatus.

THE RESISTING PROPERTIES OF IRON AND STEEL.*

In supplying an English translation of Mr. Brull's paper, Mr. Fesquet has furnished a most important supplement to that of Mr. Urbin. It appears that when steel had begun to be employed in large quantities in industry certain objections had been raised before the Society of Civil Engineers, Paris, by persons not afraid of a novelty, but having great responsibility resting upon them. Thence a great scrutiny and severity in the trials of reception. Since that time the manufacture of steel on a large scale has made great progress, many experiments on the resisting properties of iron and steel have been made, and steel has become better known. Mr. Brull demonstrates that the objections to the use of steel are vanishing, and his theoretical and practical observations will be interesting to the engineer and ironmaster. In explaining to the society the numerous and important trials made by the Northern Railway to apply steel to various uses where iron previously was generally employed, Mr. Nozo arrived at the conclusion that in the great majority of cases the results with steel are indifferent, sometimes even bad. With the exception of what is appertaining to the roadway, where steel seems to succeed, this metal has been advantageous only with wheel-tyres, and that under certain special conditions. Mr. Tresca, supporting these conclusions with theoretical facts, presented with considerable strength and clearness, sought to prove that steel is more advantageous than iron only when the pieces are submitted to friction and surface action.

The object of Mr. Brull's memoir is to protest against the conclusions drawn by Mr. Nozo from his experiments, and supported by Mr. Tresca with scientific considerations. He points out that since Mr. Tresca shows to secure the same strength the steel-rod would be 40 per cent. smaller than the iron one, and that admitting the necessity of providing increased size to allow for repeated strains, it is obvious that whatsoever be the surplus strength provided the steel-rod will always remain 40 per cent. smaller than the iron one. Mr. Brull then proceeds to comment upon and point out the conclusions to be drawn from the results of the experiments at Glasgow by Mr. D. Kirkaldy on over 1300 samples of iron and steel of every kind. He remarks that all Mr. Kirkaldy's results show clearly that for resist-

* "Practical Guide for Puddling Iron and Steel," by EDW. URBIN. "Comparison of the Resisting Properties of Iron and Steel," by A. BRULL. Translated from the French by A. A. FESQUET, chemist and engineer. Philadelphia: Baird. London: E. and F. N. Spon, Charing-cross.

ance alone all the various qualities of bar or sheet-iron come after various kinds of steel; while considering the extensions or elongations, we find that some kinds of steel, with a great deal more resistance, have an extensibility equal, and often superior, to that of the most ductile irons. In this book, so rich in precious facts, are found also 90 experiments, where the successive extensions by increasing charges up to rupture have been measured. Unhappily, the small length of the samples did not allow the measuring of the very minute extensions during the period of elasticity. From these experiments no value can be had for the co-efficient of elasticity nor for the limit of elasticity. However, it is possible to ascertain that, while under a strain of 30,353 lbs. per square inch, iron had been extended very generally more than 1 millimetre (0.03,937 inch), which is a proof that the limit of elasticity was outside, steel had not shown a measurable extension with the same instrument and a strain of 50,589 lbs. Moreover, the calculation of the area of some of the numerous curves of resistance given by the author in his book will show that in many cases various qualities of steel have an area larger than that of very resisting and ductile irons. From the experiments of Mr. Kirkaldy we see also that it is incorrect to say, in a general way, that steel is more brittle than iron. Certainly, there are steels more brittle than certain kinds of iron, and everybody will acknowledge with Mr. Tresca that these steels should be used only when great hardness is required; but there are also ductile steels, more so even than most irons, and which, besides that great ductility, have a much superior resistance. For those kinds of steel we can certainly take back the restrictions we were obliged to admit previously.

Turning from the theoretical to the practical consideration of the subject, Mr. Brull proceeds to examine the facts given by Mr. Noz, to ascertain whether they can truly impress such a grave conviction, and he completely demonstrates that the facts presented by Mr. Noz are not such as to dissuade builders from the employment of steel that this metal, such as found in industry, has over iron the advantages of more resistance and more elasticity, and that it can be properly applied to resist permanent strains or shocks, whenever it is advantageous to have a reduction of weight or a greater security, and when a slight change in the shape of the pieces will be without consequence. In conclusion, he examines the objection raised to the variety of kinds of steel found in the market. Such variety does not belong to steel alone; there is as much difference in the properties of the iron used to make the Welsh rails, called American rails, or the charcoal iron from Audincourt or Clavieres, or the Bowling and Lowmoor iron, as there is between the most puddled steel and the most refined and cemented cast-steel used for tools. Some researches in the book of Mr. Kirkaldy will prove that differences in quality are not greater with steel than with iron. All materials used in industry are situated the same; we have many kinds of copper, many qualities of tin, many sorts of wood. Nobody yet thought of complaining of that diversity; on the contrary, the builder can dispose of various materials whose properties and prices can be better adapted to special uses. But what, he asks, must the engineer do to obtain the greatest advantage of that diversity? He will study the properties of the materials he has to use; he will become familiar with their varieties; he will learn to adapt to a particular practical use those of various marks and fabrications. Such an education or study is to be made, or rather perfected, in regard to steel, which is a comparatively new material; and he thinks the best way to obtain a success, which appears certain, is not to be afraid at the beginning of certain difficulties in its use, but to master a complete knowledge by practical experience of all the various kinds of steel, and of their most proper uses.

DICTIONARY OF CHEMISTRY.

The completion of Mr. WATTS'S elaborate Chemical Dictionary* affords an opportunity for a brief general notice of the entire work, which is, perhaps, the more necessary in consequence of the very lengthened period which has been occupied by the issue—about nine years. Although the time chosen for the issue of the Dictionary was one at which the want of such a book was much felt by chemists as well as by those engaged in industrial pursuits involving the application of chemical knowledge—the want resulting from the almost innumerable changes which modern chemical experiment and research had rendered necessary in the views previously received as orthodox—the very cause of the want rendered the task of the editor peculiarly onerous. Not only was he fettered by the knowledge that to abandon all consideration for the opinions which had theretofore been entertained would have met with general disapproval, but, owing to the very transition state in which the science had been placed, he had the great difficulty to contend with of deciding which of the new series of views propounded was the most likely to stand the test of experience. There was a system which had before been generally taught, and with which practical men were so thoroughly acquainted that it would be extremely difficult for them to unlearn what they had learned, and begin anew, so that to adopt recent discoveries as far as possible to the existing theory would, probably, be best. There was a large class who, having commenced to learn more recently, had been able to see the many imperfections of the old system, and were ready to adopt any that offered greater advantage, so that it would, perhaps, be preferable to fix upon a system which the day of the issue of the first number, for example, and take the knowledge of that date as the standard. There was a large class who, whilst labouring hard to null all that they could from existing knowledge, fully recognised the circumstance that the corrections already made were such as to lead to the anticipation that others, perhaps more important, would follow, and who consequently very wisely prepared themselves to start the subject from any new light that might be thrown upon the subject, and to meet the views of these the Dictionary must contain a faithful record of all the newest hypotheses, and each of the various formulae and observations must be in accordance with them.

It was in the midst of all these circumstances, and with a knowledge that whatever course might be adopted, there was great probability that perhaps within but a few months the reasons which led to its adoption might cease to exist; that Mr. Watts commenced his labours and greater evidence of his foresight in providing for the wants of the largest possible number than that which the work just completed affords, could scarcely be desired. The value of the entire work has been much enhanced by the great care which Mr. Watts has taken to let each of the contributors to the Dictionary furnish the articles upon those subjects upon which he is an acknowledged authority; thus Prof. Foster supplies a most valuable and interesting article on "Acids," which is very complete, whether historically or scientifically considered; whilst Mr. Watts himself furnished "Alcohols" and "Aldehydes," which are admirable contributions; and the late Mr. F. T. Conington, "Amides," and the articles on the allied substances—these articles will be read with pleasure by a very large number. The re-perusal of Dr. Odling's treatise on "Atomic Weights" will suffice to teach the most conscientious how dangerous it is, in the consideration of chemical questions as in other things, to jump too hastily to a conclusion: at the time that article was published it was thought by many, then deemed fully competent to judge, that Dr. Odling had abandoned received views with scarcely sufficient authority, yet at present the very same persons would urge that he has left uncorrected many inaccuracies previously regarded as true, "Atomic Volume," "Chemical Affinity," and "Combustion," each by the Editor, are elaborate and exhaustive articles upon the subject, and cannot fail to be of general utility.

In the second volume, the first article, especially attractive to the readers of the *Mining Journal*, is that on "Copper" and its various compounds, ores, and alloys, contributed by Mr. Watts; it extends over upwards of 60 pages, and is therefore, in bulk equal to that of a moderate sized pamphlet on the subject, whilst the ability displayed in the condensation of the matter at disposal has enabled him to compress as much information into those 60 pages as is frequently found in a large volume. In the same number is an equally elaborate and profusely illustrated article on "Crystallization," which furnishes all the information the most fastidious need desire. The "Cyanides" forms a most instructive article. "Electricity" and its connections, which is likewise contributed by the Editor, extends over upwards of 100 pages, and affords an admirable epitome of the state of knowledge on the subject at the present time. In the same volume will also be found very valuable articles on "Rational Formulae," by Prof. Foster; a thoroughly practical article on "Fuel," and another on the "Chemistry of Geology," by Dr. B. H. Paul, and on "Gunpowder: its composition and manufacture," by the Editor, all of which would be highly appreciated in the industrial world even as separate treatises.

To mention each of the articles in the several volumes to which the attention of the reader should be directed will be unnecessary, as the references already made to those of the two first volumes will suffice to give an idea of the general character of the work; but it may be stated, to show the large number of trades that are dependent upon the application of the chemical processes described, that the articles include (in many instances elaborate treatises on) Magnesium, Metals, Metallurgy, Iron, Phosphorus, Potassium, Sodium, Sulphur, Tin, Water, and innumerable other substances in every-day use among manufacturers. The article on the "Atomic Weights and Classification of Iron" conveys an enormous amount of information, and the same may be said of the very excellent article on "Heat," whilst two other heavy articles, "Lead" and "Light," are particularly entitled to equal recommendation. Articles on "Nitrogen," "Nitrogen," which will prove particularly interesting to those engaged in demonstrating the necessity, or otherwise, for nitrogen in steel, "Phenylamines" and the analysis of coal tar colours, and on "Pyroxilin" or gun-cotton, appear in the fourth volume; whilst the fifth and concluding volume contains a copious and exhaustive treatise upon those most useful of chemical products used in the arts and manufactures—Sulphur, and the various compounds thereof, as well as articles on Soda, Sodium, Substitution, Sugars, Thallium, Tin, Tungsten, Zinc and its compounds, &c., so that it may safely be said that whatever branch of industry the reader may be engaged in, he will find by far the larger proportion of chemical information he is likely to require in this single Dictionary. Owing to so long a period as nine years having elapsed since the commencement

of the publication of the work, and the important changes which have taken place in the interim in the opinion of chemical authorities, Mr. Watts remarks that the earlier volumes are somewhat behind the present state of knowledge, but this difficulty it is proposed to meet by the publication hereafter of a Supplement, so that the work can scarcely fail to secure the position it is so well entitled to, that of the most important chemical dictionary in the English language.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advices received May 2, ex *Del Rey* steamer.

Morro Velho, March 28.—GENERAL OPERATIONS: Since giving the usual monthly summary, on the 17th current, our general work here, as then reported, has been carried on steadily, without any interruption. We have an abundant supply of water for our present purposes, though the rain fall during the month has been unusually small.

MINES.—In the Gamba Mine, and in those sections of the East and West Quebra Paella an original, being a good one, presented with about the same amount of force, and to the same extent, as previously advised. The mineral from those sections appears to continue about the same in quality, and the supply scarcely so large as during the first fortnight of the month.

GAIA MINE.—The quantity of mineral available from this mine during the second division of March has been sufficient to supply an average of 16 leads of the stamping-mill. The lode is being opened its full width (about 20 ft.), and stopped up with silica, so that a good supply of water can be obtained, but we cannot quarry nearly enough mineral for the supply of 24 leads of stamps.

EXPLORATIONS.—The level at this mine is being continued westward, and is now passing through the covering of the second formation. In this Capt. Joze Maria da Cunha Jardim worked last, following down the layer, when he was excluded from the Gamba lode by water, and the falling in of the slides. At the Gamba lode a little ore is being quarried, and conveyed down on a temporary roadway to Gamba stamping-mill. We had not sufficient ore to justify an experiment during the past division of the month, but it will be now commenced in the first division of April.

MATTO VIRGIN LODE.—The openings have been cleared, and the water let off from the old workings.

REDUCTION DEPARTMENT.—The supply received from the mine has not been quite so large as during the first division of the month. About 100 wagons daily have been brought in from the killas heap adjacent to the works. This is now a very small quantity, but we have not yet had a fair general section of lode, to show the quantity of killas rejected was small. It is also brought up on a level with the tramways with considerable labour. The spalling has been done about the same size for the killas heretofore reported, the stamps and arrastres kept regularly at work, and the amalgamation-house machinery has operated satisfactorily. The quantity of sand caught on the strakes is about the usual average from the stone being treated.

Both stamps and arrastres have been kept fully employed in the re-treatment of the sand here. A considerable proportion of that required for the stamps is now brought in from the depot of sand, heretofore deposited close to the works. It is brought in by tramway, and delivered into the passes. The killas now available for re-treatment of the sand is of inferior quality.

GOLD EXTRACTED TO DATE.—The produce from the general stamps for the second division of March, being a period of 11 days, is as follows:—

From General stamps, stopping, from 20555 to 127	Ounces of ore, Oils, p. ton
2,488	2,488
From the return includes the produce of the Gamba ore treated at one side of the Herring stamps:—	Tons, Oils, p. ton.
From 820 Oils, 4087	2,006

At GAIA, during the same division, an average of 16 stamp-heads were kept supplied, and from them was received the following produce—viz., 313 Oils of this produce is smaller than might have been expected from the assays made of samples of the lode, but we have not yet had a fair general section of lode, to show clearly how much its gold contents in the stamps will be.

Morro Velho, March 28.—The gold troop was dispatched this day, taking four boxes of bar gold, containing 11 bars, weighing in all 16,495.4 Oils, 158.470 lbs. It will be shipped for England by the agents at Rio Janeiro.

N.B.—The gold was duly received in London. I regret the smallness of the remittance now sent, but an effort will be made to send a better one in May.

DON PEDRO NORTH DEL REY.—F. S. Symons, April 2: Remittance, 23,550 Oils, 2717 Oils, Troy; this exceeds the last one by 2030 Oils. The works have progressed steadily. Lines Nos. 1 and 2 being poor, have not been followed. No. 3 has been worked regularly, but has been very poor, although remaining well defined. No. 4 has been fluctuating, but has given, on the whole, good vein stuff, and would have given much more had we not been thrown back in the beginning part of the month by the damp which settled in it. The water is increasing in Nos. 3 and 4 lines. We have Californian pumps at work in both, as much speed in sinking on these lines cannot be made when we have to contend with water. The general body of lode is looking and yielding well. The shallow and middle adits have been worked day and night, with three corps in each; the ground in the first continues wet and troublesome. In the second the end is in hard basting ground. The deep adit is still in abeyance. Produce cleared up to date, 10,373 Oils, 1196 Oils, Troy.

ANGLO-BRAZILIAN.—F. S. Symons, April 2: The produce cleared up to March 20 amounted to 1756 Oils, of gold. On the 26th ult. I forwarded to the agents a box, No. 4, containing 5283 Oils, of gold (6899 Oils, Troy), derived as follows:—Last division of January, 571 Oils; February produce, 2656 Oils; produce cleared up to March 20, 1756 Oils. The works have proceeded with regularity. The ground between Dawson's south and tanks drained is being broken away, and a large body of lode laid bare, which is highly impregnated with caco and pyrites, and I have no doubt will yield well when in working order, and give a good supply of stone. In the Buraco Secco there is little alteration. At Haymwe's we have a large body of promising lode; and at Foster's there is an improvement, so that, on the whole, the mine is looking well. A corps has been put to work in the Barril adit, to open a communication to Barril Mine, the stone from which will be tested shortly, when force can be spared. The deep adit is being worked day and night; the end is more wet than formerly—a good sign, and lines of pyrites and caco are appearing. The attendance at the mine has been the best we have yet had. The measures adopted to obtain an additional force have been attended with success.

ROSSA GRANDE.—Ernest Hilleck, March 31: We have intersected with the old workings in the air-shaft about 12 fms. above the adit on the underlie of the lode, and found by examining the same that large bodies of lode, of a highly auriferous nature, are to be met with, and that the lode is of a good quality, the exact yield is not ascertained before the clearing up for the month is finished. The lode in the end of the adit level still continues hard; its size leads to the most promising expectations, for in driving the level we have a good hard lode in the bottom and back. The favourable appearance of the lode in the shaft as well as in the level has brought me to the conclusion to commence building a second-hand stamps without delay, and to suspend for the time the preparation of the hanging and stamping machinery in the Barril Mine. The great part of the wheel for this machine is completed, and will come in for the stamps. Since the intersection with the old workings in the shaft an extra force has been put there for stopping, and therefore the Barril Mine jacking exploration has been worked secondary. Remittance, 2096 Oils, 241 Oils, Troy.

LAGUNA.—J. R. Rule, March 27: As soon as the drainage is completed, which I expect will be in the course of another four or five days, I shall commence the sinking of the shaft. The water is now drained to about 68 vases, and as the main working is above that level, the space below being little more than the shaft, the drainage of the remaining place we expect will be concluded early in the ensuing week, and as soon as possible sinking will be commenced.

LUSTANIAN.—April 28: Palhal Mine—Basto's Lode: At River shaft, below the 90, the lode is 2 ft. wide, composed of flookan. The lode in the 120, west of Taylor's, has in the last 6 ft. greatly improved, and is now worth 3 tons of ore per fathom. In the 120, east of Taylor's, the part of the lode that has been taken down has yielded 2 tons of ore per fathom. The shaftmen will now go back to the shaft to put in penthouse, bring down slip-road, and do the preparatory work for sinking below the 120, which we hope to begin about the end of this month (May). The 110, east of Taylor's, produces 1 ton of good ore per fathom. The 110, west of Taylor's, yields 1/2 ton per fathom. The lode in the 100, east of Taylor's, is 1 1/2 ft. wide, composed of flookan, and containing at times small stones of ore. The 100, east of River shaft, is composed of a dry flookan. In No. 73 winze, below the 90, the lode is 2 ft. wide, composed of flookan. The 85, west of Perez shaft, continues in an unsettled state. The lode in the 75, west of Perez shaft, is small, composed of quartz and muddle, intermixed with country. In the adit, west of Perez shaft, the lode is very small, but it contains copper ore in small quantities, and small streams of water issue from it. Caunter Lode: The lode in the 100, west of cross-cut, at Taylor's, is in a very unsettled state, which is occasioned by the union of caunter, mill, and new lode. The 90, west of Taylor's, is 2 ft. wide, composed of flookan. In the 80 ft. level, east of the slide, the lode is 2 ft. wide, and produces 1 1/2 ton of ore per fathom. Ponté Lode: The lode in the 28, east of the slide, is small, composed of quartz. Great Caunter Lode: The lode in the 60, east of Oak engine-shaft, is split into branches, all of which are composed of flookan.

Cross-cuts: The ground in the 60, north of River shaft, and in the 28, south of Basto's lode, west of Perez shaft, is composed of a hard gneiss. Winzes: In No. 73 winze, below the 90, the lode is 2 ft. wide, composed of flookan, and produces 2 tons of ore per fathom. In No. 65 winze, below the 50, west of Taylor's, on new lode, and in the rise above the 70, against No. 65 winze, the lode is 1 ft. wide, composed of quartz and flookan. No. 72 winze, below the 70, east of slide, on caunter lode, produces 1/2 ton of ore per fathom. Stopes on Basto's Lode: In the stope above the 18, west of Fonsaca's winze, the lode yields 1/2 ton per fathom. In the stope above the 28, east and west of No. 58 winze, the lode yields 3/4 ton per fathom. In the stope above the 80, west of Domingo's winze, the lode yields 1 1/2 ton per fathom. In the stope above the 80, east of Taylor's, the lode yields 1 1/2 ton per fathom. In the stope below the 80, west of No. 28 winze, the lode yields 1/2 ton per fathom. In the stope below the 80, west of No. 61 winze, the lode yields 2 tons per fathom. In the stope above the 80, east of No. 61 winze, the lode yields 1 1/2 ton per fathom. In the stope above the 80, east of Taylor's, the lode yields 3/4 ton per fathom. In the stope above the 110, east of No. 61 winze, the lode yields 1 1/2 ton per fathom. In the stope above the 100, west of No. 61 winze, the lode yields 1 ton per fathom. In the stope above the 90, west of No. 32 winze, the lode yields 1/2 ton per fathom. In the stope above the 28, west of Taylor's, the lode yields 3/4 ton per fathom. In the stope above the 110, west of No. 67 winze, the lode yields 3 tons per fathom. In the stope above the 100, east of Taylor's, the lode yields 1 1/2 ton per fathom. In the stope above the 20, west of Taylor's, the lode is 2 ft. wide, composed of soft quartz, muddle, and faces of lead. The lode in the 30, east of incline shaft, is divided into two branches, with a horse of country in the middle, making a total width of 8 ft.; there is lead in the north part of the lode worth 1/2 ton per fathom. In the 20, east of incline shaft, the lode is 6 ft. wide, composed of quartz, intermixed with country, and worth 1/2 ton of lead per fathom. The 10, east of incline shaft, yields

2 tons per fm.—Stopes on Great Lode: In the stope above the 20, east of incline shaft, the lode yields 3/4 ton per fm. In the stope above the 10, east of incline shaft, the lode yields 1/2 ton per fm. In the stope above the 30, east of No. 5 winze, the lode yields 1 1/2 ton per fathom.

PESTARENA UNITED.—E. Francfort, May 4: We have remitted to-day, to the office, 1025 Oils, gold. The remittance would have been larger had we not been very short of water. We have now a full supply.

RHENISH CONSOLS.—G. Sweet, April 30: Christiana: In handing you my usual monthly report, I am glad to state the drive west, in the 10 lachter level, has realised the expectations expressed in my last monthly report. This drive will now afford fully 2 tons of lead ore per lachter; and from indications in the adit level we have reason to suppose this shoot of ore to be a great many lachters long. The drive west, in the 20 lachter level, will afford 1 1/2 ton of lead ore per lachter. The drive east at this level will yield 1 ton of lead ore per lachter. Pittar's sink will afford 4 tons of lead ore per lachter. We have bored a hole from the bottom of this sink to the 20 lachter level, which has let down the water. In the drive west, in the adit level, there are good ribs of blende, with little lead. The stope in the roof of this level, west of Sweet's winze, will afford 1 1/2 ton of lead ore per lachter. Bliebach: The drive west, on the north lode, in the 10 lachter level, is still poor. A cross-cut is now being driven south from the side of this level, 20 lachters west of the cross-cut, for the purpose of intersecting the middle lode; in this cross-cut are good spots of copper ore. The stope on the middle lode, in the 10 lachter level, and 10 lachters west of the cross-cut, will afford 14 centners of lead ore per lachter. A stope in the adit level, 10 lachters west of the cross-course, on this lode, will afford 15 centners of lead ore per lachter. The lode intersected in the cross-cut north, east of the cross-course, in the adit level, is from 4 to 9 inches wide, and composed of blende, with a little lead ore. A rise putting up from the 10 to the adit level, on the north lode, will afford 10 centners of lead ore per lachter. The tribute bargains on the south lode are affording a fair quantity of blende.—Fahrenberg: At this mine there is one tribute bargain set, at 2 thalers per centner, for clean lead ores. Estimated returns for the month of April:—Bliebach and Christiana, 520 centners of lead, worth 1380 thalers; 300 centners of blende, 350 thalers; Fahrenberg, 30 centners of lead, 80 thalers; total, 1810 thalers. Estimated cost on the mines:—Bliebach and Christiana, 1800 thalers; Fahrenberg, 65 thalers; total, 1865 thalers; deficit, 55 thalers.

VAL SASSAM.—T. Rickard, May 2: Ursa: The cantina end was driven 3-25 metres last month, through ground yielding on an average about 2 cwt. of ore per fm. At the present end the lode is strong and regular, but contains very little ore. The driving is re-set to four men, at 85 frs. per metre, and 17. per month for saving the ore. The cross-cut behind this end has in the past month cut through the limestone and reached the lode, but where cut it is poor. The stope at the cantina gallery are the same as at the time of my last report—that is to say, they continue to yield at the rate of 4 cwt. of ore per square fathom. The Nora end was driven 5 metres during the month; the lode is regular, and now and then produces stones of ore, and looks kindly. The end is re-set to three men, at 50 frs. per metre, inclusive of transport. The tribute pitches have yielded to estimate during the month, and are set again at nearly the same conditions as for April. On the 4th of last month we forwarded to England 8372 kilogrammes of Ursa ore, and on the 25th other 9664 kilos; together, nearly 17 tons. We estimate that the sampling for the present month will be nearly 15 tons. Tospino: This week we have been working in the dressing-floors at the mine. The weather is too uncertain at this time of the year to admit of estimating the produce, but if it continues favourable there will be a nice batch of ore ready at the end of May.

PONTGIBAUD.—W. H. Rickard, May 1: Roure: We are making preparations to sink below the 125 metre level, at Richards's shaft, which will be commenced in a few days. The rise in the back of the 125 south yields stones of ore. The 80 metre level south is in a kindly lode, yielding a little ore stuff. The rise in the back of this level is in soft, unproductive ground. The 60 metre level south is unproductive. The 40, in the same direction, shows spots of ore, not enough to save. The adit south of Richards's is unproductive. The stolen north adit of Virginie's shaft, on Virginie's lode, is poor. The stolen south of whin-shaft is looking more kindly.—La Grange: The 80 metre level, north of Nosky's shaft, yields 1/2 ton of ore per fathom. The 60 north yield a little saving work. The winze sinking below this level is unproductive.—Mioche: The adit north, on No. 6 lode, is in disordered ground.—La Brusse: Sinking Bassett's shaft below the 80 metre level goes on pretty well. The 50 metre level south yields from 4 to 5 tons of good ore per fm. The 60 metre level south yield 1 ton of ore per fm. The 60, on the western split, yields 3/4 ton per fm.; in the same level, the lode where being undercut yields 4 tons of ore per fm. The 40 north yields stones of blende, spotted with lead ore. The 40 south is unproductive. The 40, on the eastern part, yields 1 ton of ore per fm. The 20 south is unproductive. The surface shaft sinking on the western lode is a little harder, and more spare for sinking, being also a little wet.—Pranal: The 70 cross-cut west is in very hard ground. The 50 metre level, north of junction, on St. Matthew's lode, yields 3/4 ton of ore per fm. The same level south yields 1/2 ton of ore per fathom. The 60 cross-cut of cross-cut, yield about 3/4 ton per fm. each. The 30 north is poor. The 30 south yields 1 ton of ore per fm. The 8 north yields 1/2 ton of ore per fathom. The 8 cross-cuts, west of Susan's and St. Matthew's lodes, are in hard ground. The winze sinking from the adit yields stones of ore and blende. The adit level south of Bontoux's shaft has met with small veins of barytes, but the ground is stiff. Our stope and tribute pitches throughout the mines generally yield satisfactorily, as the samplings will testify. We have been fortunate in the last fortnight to work pretty well at out-door work, but previously the weather was unsettled and wet. Our samplings amount to 349 tons.

LINARES.—April 25: West of Engine-Shaft: The lode in the 110, west of Santo Tomas engine-shaft, is small, at present yielding 1/2 ton of ore per fathom. The 75, west of Warne's engine-shaft, produces 1 ton of ore per fathom. The lode has changed very unfavourably in the past week. The 31, east of San Francisco shaft, yields 1 ton of ore per fathom. This is easy for driving, and is opening good tribute ground.—East of Engine-Shaft: The lode in the 95, east of Taylor's cross-cut, is very large, with good stones of ore in the bottom of the end. The yield is about 1/2 ton per fathom. The 95, east of No. 154 winze, produces 1 ton of ore per fathom. The lode is large, consisting chiefly of carbonate of lime and stones of lead.—Shafts and Winzes: Warne's engine-shaft, sinking below the 75, produces 1 ton of ore per fathom. An unusually good month's work has been done in this shaft in the past month, during which time the lode has fluctuated greatly, and was at one time worth treble its present value. No. 155 winze, below the 61, is holed to the 75, and has opened a fine piece of tribute ground. No. 157 winze, below the 61, produces 1 1/2 ton of ore per fathom. This winze is situated in the bottom of the lode, and is going down in a very strong and promising lode. No. 158 winze, below the 85, produces 1 ton of ore per fathom; this is in the north level, and east of Taylor's shaft, and in advance of No. 154 winze. No. 159 winze, below the 31, yields 1 ton of ore per fathom; this new winze is on San Francisco lode, and is going down in moderately productive ground. San Jose shaft, below the 85, will be pushed down as fast as possible during the dry season. The lode yields 1 ton per fathom. A good rate of raising we have put on the shaft, and the lode is strong, and will not undergo any mutual change. We estimate the returns for May (five weeks) at 300 tons. The machinery is in very good working order, and the surface operations are going on very regularly.—Quintientos Mine: Taylor's engine-shaft, sinking below the 20, is completed to the 30, and the men are put to drive from the bottom of the same. We have begun to drive the 30, east of Taylor's engine-shaft, and have no doubt that when it gets only slightly removed from the influence of the cross-cut it will become productive. In the 30, west of Taylor's engine-shaft, the point of the lode is very small in the end of the shaft, but we expect it will begin to improve immediately.

FORTUNA.—April 25: Canada Inco Mine: The lode in the 110, west of O'Shea's shaft, is large, producing 3/4 ton of ore per fathom. In the 100, west of O'Shea's shaft, the ground is more favourable, and the men are making good progress in driving. The 90, west of Judd's shaft, yields 3/4 ton of ore per fathom; the lode has fallen off both in size and value. No change has taken place in the 80, west of Judd's, since our last report; the lode is worth 3/4 ton of ore per fathom. The 70, east of Carro's shaft, produces 1 ton per fathom. This is rather disordered by a hard bar of ground, which we hope to get through shortly. In the 55, east of San Tomas shaft, the lode, which is very small, produces 1/2 ton of ore per fathom. The ground in the 80 cross-cut south is somewhat harder than it was.—South Lode: In the 50, east of San Pedro shaft, the lode is large, and has a very promising appearance, and yields 1/2 ton of ore per fathom. The 50, west of San Pedro shaft, produces 3/4 ton of ore per fathom; the ground is easy, and the lode is of a promising character. In the 40, west of San Pedro shaft, the lode, which is small, produces 1/2 ton of ore per fathom; the ground is hard. In Gomez's winze, below the 30, the lode is still small and valueless.—Los Salidos Mine: The lode in the 100, west of Morris's shaft, has not improved as we expected, judging from the level above. The lode in the 65, west of San Carlos shaft, is small and compact, yielding 3/4 ton of ore per fathom, and the ground is easier for driving. The lode in the 100, east of Morris's engine-shaft, is large and strong, composed of quartz and carbonate of lime, and producing 1 1/2 ton of ore per fathom. In the 90, east of Cox's engine-shaft, we have put on men to drive north, where we expect to find a better part of the lode. The 75, east of San Pablo, although not so productive as it has been, is still opening valuable tribute ground, and now yields 1 1/2 ton per fathom. There is no noticeable change in the 65 cross-cut east of San Miguel shaft. Shafts and Winzes: In Buenos Amigos shaft, sinking below the 90, the lode is split into branches, with a little lead. Carrascosa's winze, below the 75, produces 1 1/2 ton per fathom. We expect to hole this with the 90 in a few days. Calegon winze, below the 55, is situated on the west of Candido's winze, and in advance of the 65 end west; it yields 1/2 ton per fathom.

ALAMILLOS.—April 25: The lode in the 4th level, east of La Magdalena shaft, is still large, and spotted with lead; it is not, however, so productive as it has been, yielding now 1/2 ton of lead ore per fathom. The 4th level, west of La Magdalena shaft, is still large, and is yielding 2 tons of ore per fathom; this is a productive and promising lode, and much better than it was in the level over it. In the 4th level, east of Taylor's engine-shaft, the men are put to cross-cut north to hole to the last-named end. The lode in the 5th level, east of Taylor's engine-shaft, is large, open, and easy for driving, and produces 1/2 ton of ore per fathom. The lode in the 5th level, west of Taylor's engine-shaft, is unproductive at present, and the ground is getting harder for driving. In the 4th level, west of Andriano shaft, the lode has changed unfavourably of late. The 3d level, west of San Yago, produces 1 ton of ore per fathom; the lode is improving, and letting out much water. The lode in the 2d level, west of Crosby's cross-cut, is small at present, producing 3/4 ton of ore per fathom.—Shafts and Winzes: In Taylor's engine-shaft, below the 5th level, we are cutting the clatern preparatory to sinking to a 6th level. San Guillermo shaft, below the 1st level, we have put on men to drive north, where we expect to find a better part of the lode. The 3d level, west of San Yago, below the 1st level, produces 1 ton of ore per fathom. The 3d level, west of San Yago, below the 1st level, produces 1 ton of ore per fathom; this is going down in a kindly lode. The stope yielded very well in the past month, and we are able to estimate the raisings at 300 tons for May (five weeks). The machinery is in very good working order, and all surface operations are going on with the usual regularity.

* * * We have a few volumes of the MINING JOURNAL for 1867, neatly bound, which can be had, price 30s., either direct from the office, or through any bookseller or news agent.

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SATURDAY, MAY 2.—There is a fair demand to-day for Prince of Wales shares, at an advance to 51s., 53s., 55s., 57s., 59s., 61s., 63s., 65s., 67s., 69s., 71s., 73s., 75s., 77s., 79s., 81s., 83s., 85s., 87s., 89s., 91s., 93s., 95s., 97s., 99s., 101s., 103s., 105s., 107s., 109s., 111s., 113s., 115s., 117s., 119s., 121s., 123s., 125s., 127s., 129s., 131s., 133s., 135s., 137s., 139s., 141s., 143s., 145s., 147s., 149s., 151s., 153s., 155s., 157s., 159s., 161s., 163s., 165s., 167s., 169s., 171s., 173s., 175s., 177s., 179s., 181s., 183s., 185s., 187s., 189s., 191s., 193s., 195s., 197s., 199s., 201s., 203s., 205s., 207s., 209s., 211s., 213s., 215s., 217s., 219s., 221s., 223s., 225s., 227s., 229s., 231s., 233s., 235s., 237s., 239s., 241s., 243s., 245s., 247s., 249s., 251s., 253s., 255s., 257s., 259s., 261s., 263s., 265s., 267s., 269s., 271s., 273s., 275s., 277s., 279s., 281s., 283s., 285s., 287s., 289s., 291s., 293s., 295s., 297s., 299s., 301s., 303s., 305s., 307s., 309s., 311s., 313s., 315s., 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1903s., 1905s., 1907s., 1909s., 1911s., 1913s., 1915s., 1917s., 1919s., 1921s., 1923s., 1925s., 1927s., 1929s., 1931s., 1933s., 1935s., 1937s., 1939s., 1941s., 1943s., 1945s., 1947s., 1949s., 1951s., 1953s., 1955s., 1957s., 1959s., 1961s., 1963s., 1965s., 1967s., 1969s., 1971s., 1973s., 1975s., 1977s., 1979s., 1981s., 1983s., 1985s., 1987s., 1989s., 1991s., 1993s., 1995s., 1997s., 1999s., 2001s., 2003s., 2005s., 2007s., 2009s., 2011s., 2013s., 2015s., 2017s., 2019s., 2021s., 2023s., 2025s., 2027s., 2029s., 2031s., 2033s., 2035s., 2037s., 2039s., 2041s., 2043s., 2045s., 2047s., 2049s., 2051s., 2053s., 2055s., 2057s., 2059s., 2061s., 2063s., 2065s., 2067s., 2069s., 2071s., 2073s., 2075s., 2077s., 2079s., 2081s., 2083s., 2085s., 2087s., 2089s., 2091s., 2093s., 2095s., 2097s., 2099s., 2101s., 2103s., 2105s., 2107s., 2109s., 2111s., 2113s., 2115s., 2117s., 2119s., 2121s., 2123s., 2125s., 2127s., 2129s., 2131s., 2133s., 2135s., 2137s., 2139s., 2141s., 2143s., 2145s., 2147s., 2149s., 2151s., 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2403s., 2405s., 2407s., 2409s., 2411s., 2413s., 2415s., 2417s., 2419s., 2421s., 2423s., 2425s., 2427s., 2429s., 2431s., 2433s., 2435s., 2437s., 2439s., 2441s., 2443s., 2445s., 2447s., 2449s., 2451s., 2453s., 2455s., 2457s., 2459s., 2461s., 2463s., 2465s., 2467s., 2469s., 2471s., 2473s., 2475s., 2477s., 2479s., 2481s., 2483s., 2485s., 2487s., 2489s., 2491s., 2493s., 2495s., 2497s., 2499s., 2501s., 2503s., 2505s., 2507s., 2509s., 2511s., 2513s., 2515s., 2517s., 2519s., 2521s., 2523s., 2525s., 2527s., 2529s., 2531s., 2533s., 2535s., 2537s., 2539s., 2541s., 2543s., 2545s., 2547s., 2549s., 2551s., 2553s., 2555s., 2557s., 2559s., 2561s., 2563s., 2565s., 2567s., 2569s., 2571s., 2573s., 2575s., 2577s., 2579s., 2581s., 2583s., 2585s., 2587s., 2589s., 2591s., 2593s., 2595s., 2597s., 2599s., 2601s., 2603s., 2605s., 2607s., 2609s., 2611s., 2613s., 2615s., 2617s., 2619s., 2621s., 2623s., 2625s., 2627s., 2629s., 2631s., 2633s., 2635s., 2637s., 2639s., 2641s., 2643s., 2645s., 2647s., 2649s., 2651s., 2653s., 2655s., 2657s., 2659s., 2661s., 2663s., 2665s., 2667s., 2669s., 2671s., 2673s., 2675s., 2677s., 2679s., 2681s., 2683s., 2685s., 2687s., 2689s., 2691s., 2693s., 2695s., 2697s., 2699s., 2701s., 2703s., 2705s., 2707s., 2709s., 2711s., 2713s., 2715s., 2717s., 2719s., 2721s., 2723s., 2725s., 2727s., 2729s., 2731s., 2733s., 2735s., 2737s., 2739s., 2741s., 2743s., 2745s., 2747s., 2749s., 2751s., 2753s., 2755s., 2757s., 2759s., 2761s., 2763s., 2765s., 2767s., 2769s., 2771s., 2773s., 2775s., 2777s., 2779s., 2781s., 2783s., 2785s., 2787s., 2789s., 2791s., 2793s., 2795s., 2797s., 2799s., 2801s., 2803s., 2805s., 2807s., 2809s., 2811s., 2813s., 2815s., 2817s., 2819s., 2821s., 2823s., 2825s., 2827s., 2829s., 2831s., 2833s., 2835s., 2837s., 2839s., 2841s., 2843s., 2845s., 2847s., 2849s., 2851s., 2853s., 2855s., 2857s., 2859s., 2861s., 2863s., 2865s., 2867s., 2869s., 2871s., 2873s., 2875s., 2877s., 2879s., 2881s., 2883s., 2885s., 2887s., 2889s., 2891s., 2893s., 2895s., 2897s., 2899s., 2901s., 2903s., 2905s., 2907s., 2909s., 2911s., 2913s., 2915s., 2917s., 2919s., 2921s., 2923s., 2925s., 2927s., 2929s., 2931s., 2933s., 2935s., 2937s., 2939s., 2941s., 2943s., 2945s., 2947s., 2949s., 2951s., 2953s., 2955s., 2957s., 2959s., 2961s., 2963s., 2965s., 2967s., 2969s., 2971s., 2973s., 2975s., 2977s., 2979s., 2981s., 2983s., 2985s., 2987s., 2989s., 2991s., 2993s., 2995s., 2997s., 2999s., 3001s., 3003s., 3005s., 3007s., 3009s., 3011s., 3013s., 3015s., 3017s., 3019s., 3021s., 3023s., 3025s., 3027s., 3029s., 3031s., 3033s., 3035s., 3037s., 3039s., 3041s., 3043s., 3045s., 3047s., 3049s., 3051s., 3053s., 3055s., 3057s., 3059s., 3061s., 3063s., 3065s., 3067s., 3069s., 3071s., 3073s., 3075s., 3077s., 3079s., 3081s., 3083s., 3085s., 3087s., 3089s., 3091s., 3093s., 3095s., 3097s., 3099s., 3101s., 3103s., 3105s., 3107s., 3109s., 3111s., 3113s., 3115s., 3117s., 3119s., 3121s., 3123s., 3125s., 3127s., 3129s., 3131s., 3133s., 3135s., 3137s., 3139s., 3141s., 3143s., 3145s., 3147s., 3149s., 3151s., 3153s., 3155s., 3157s., 3159s., 3161s., 3163s., 3165s., 3167s., 3169s., 3171s., 3173s., 3175s., 3177s., 3179s., 3181s., 3183s., 3185s., 3187s., 3189s., 3191s., 3193s., 3195s., 3197s., 3199s., 3201s., 3203s., 3205s., 3207s., 3209s., 3211s., 3213s., 3215s., 3217s., 3219s., 3221s., 3223s., 3225s., 3227s., 3229s., 3231s., 3233s., 3235s., 3237s., 3239s., 3241s., 3243s., 3245s., 3247s., 3249s., 3251s., 3253s., 3255s., 3257s., 3259s., 3261s., 3263s., 3265s., 3267s., 3269s., 3271s., 3273s., 3275s., 3277s., 3279s., 3281s., 3283s., 3285s., 3287s., 3289s., 3291s., 3293s., 3295s., 3297s., 3299s., 3301s., 3303s., 3305s., 3307s., 3309s., 3311s., 3313s., 3315s., 3317s., 3319s., 3321s., 3323s., 3325s., 3327s., 3329s., 3331s., 3333s., 3335s., 3337s., 3339s., 3341s., 3343s., 3345s., 3347s., 3349s., 3351s., 3353s., 3355s., 3357s., 3359s., 3361s., 3363s., 3365s., 3367s., 3369s., 3371s., 3373s., 3375s., 3377s., 3379s., 3381s., 3383s., 3385s., 3387s., 3389s., 3391

to mining, however, times are really not as good as they used to be, for the commercial immorality of the age touched the proprietors during the disastrous years of 1864 and 1865, when men went wild with gain, and the baneful effects have not yet disappeared. We must not look for some time to come at least, for sudden advances of rent, per cent. in mining stock. People will now have time (and rightly so) to be convinced by actual results, and everything tending to deepen this determination should be considered a blessing. And those who hold undoubted securities can well afford to wait, as the holders of some mining shares I could mention are likely, ere long, abundantly to prove. The state of ROSE AND CHIVERTON UNITED should not pass by the notice of capitalists. A property will be laid open there which, in point of value, is likely to be second to none in the county of Cornwall. Concerning this mine, cautious men may well speak with an opinion rarely adopted by the prudent about mines.

At COLQUHOUN AND CALLINGTON, as in the best regulated families, mistakes will, seemingly, happen. The progress of the 20 has been impeded through some imperfection in the engine. No one will be benefited by this exception, indeed, those who buy the shares now, and, it would appear by the reports of Capt. Pope and Pomroy (agents who are quite independent, and who have been sent by private shareholders), are likely to do exceedingly well. Of course, the stock is somewhat depressed, as in the case previous to a great rise. WEST WHEAL KITTIE shares are in favour, and WHEAL KITTIE (St. Agnes) have also been in demand. GREAT WHEAL VOR has been slightly flatter, but WEST CHIVERTON has been steady. DON PEDRO shares have been flatter; and one or two other gold mines, showing a tendency to advance, have given way instead. NEW LEVELS decidedly firmer. The tone as to copper mines is not as we could wish. Tin mines good. Lead mines excellent.

COPPER ORE TRADE.—In last week's Journal sales of Chili bars were effected at 77½; and in the reports of Messrs. P. Campbell and Co. and Vivian and Co. the price of ores is quoted at 15s. 6d. per unit, equal to 77½. per ton of metal. At the last Swansea sale, Cuba and Cape ores realised 15s. 6d. per unit. This must be encouraging to the importers of foreign ores.

MINING NOTABILIA

[EXTRACTS FROM OUR CORRESPONDENCE.]

CHIVERTON VALLEY has been coming much into favour since the last meeting, which was held some six weeks ago, and the financial position of the concern fully justifies it. There was a credit balance of 11867, besides 12000, paid in advance of dues, and for premium for permanent reduction of dues from 1-15th to 1-18th. Some of the largest proprietors in West Chiverton are interested in the success of the mine.

NEW CLIFFORD.—The operations at this mine are now of deep interest to the shareholders, as within a short time five well-known lodes will be intersected by the north and south cross-cuts at the 50 ft. level. Any of these lodes cutting rich will well repay the shareholders for their patience and perseverance.

At **EAST WHEAL GRENVILLE** the lode in the shaft, sinking below the 110, maintains its productivity, worth 4 tons of ore per fathom. The copper ore sold on Thursday realised 237½; and as the tin sale for this quarter is expected to be from 4 to 5 tons, in all probability the call at the ensuing meeting will be less than the last.

The new tin lode in the 120, at **WHEAL GRENVILLE**, continues worth 300, per fathom, and there is a good bunch of tin both above and below the level. The cross-cut to prove this lode at the 110 has been driven 15 ft., and it is expected the lode will be intersected next week.

At **Dolcoath** recent meeting, the salary of Captain J. Thomas, the manager, was fixed at 151, 15s. a month; Capt. Pearce the tin-dresser, was advanced to 101, 10s. All goods bought and sold to be done through the committee. Messrs. Hutchinson, Vincent, Harris, and Butlin, to be surgeons of the mine, and to attend all the families of the men, the men paying 1s. per month. Loud complaints were made of the coal supplied as being so much rubbish.

With regard to the question of the coal supplied to the mines, it is manifest that great circumspection should be used by the merchants, the importers, as well as the mine agents and adventurers themselves. It cannot be too generally enforced that a low-priced article is frequently the dearest that can be obtained, yet lowness of price is too often the one thing aimed at. When it is remembered what an important item coal is—at Clifford alone 20000, odd it is charged as the last two months' account—we have often wondered at the very inferior article too often imported, and this especially when it is remembered that the charge for freight, carriage, &c., is the same as for a good sound article. Let premiums be offered to the engine-men who do the greatest amount of duty with the smallest consumption of coal, as we have often before urged.

Two years ago the mines could scarcely make 12s. or 13s. a ton of their arsenic. Now, however, in consequence of increased competition amongst the manufacturers, 21, 10s. and 31, is obtainable; and a few weeks since the Wheal Seton shares were offered 31, 11s. 6d. per ton. This, with 70 tons for sale, would make a tidy little credit in the accounts. It is doubtful, however, whether any profit is to be realised at these very high prices by the manufacturers.

At **East Caradon** the cost has been considerably increased during the past quarter, as the water coming from the mine contains such a strong solution of copper that it destroyed the iron condensing work of the engines, and to remedy this new had to be cast, with brass linings.—*West Briton.*

MINERAL WEALTH OF AMERICA.—As the railways are pushed across the United States towards the Pacific, the Government geologists are sent to make surveys of the new territories, and already Dakota, Colorado, and Nebraska have been explored. Some of the early travellers reported the existence of what they called "stone coal" in the regions of the Upper Missouri, and the Yellowstone river; and the surveys have recently ascertained that the fields of lignite—to use the geological term—are of surprising extent and value. The more valuable because the deposits of excellent ore, which yields 70 per cent. of metallic iron. In the State of Colorado alone there is an area of 50 square miles in which this ore abounds, and the surveys report the existence of large beds in the regions traversed by the railways. No timber grows in those regions, hence the demand for other fuel must be severe; and taking into account that the lignite extends over an area of more than 10,000 square miles, it may be allowed that the Americans have some grounds for their anticipations, that at some future day the north-western States will become the centre of mining and manufacturing industry, far beyond that now existing in Pennsylvania.

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STATISTICS OF THE MINES OF CORNWALL AND DEVON,

WITH OBSERVATIONS UPON THEM.

BY **THOMAS SPARGO, STOCK AND SHAREDEALER,**
GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

I beg to inform the mining interest that my work, under the above title, for 1866 and 1867 is now ready. It contains the following particulars—viz., the geological position, present prospects, names of purser, manager, and secretary, with statement of the annual returns of each mine during the last two years, and of total dividends paid to the present time. The work is illustrated by a map of Cornwall and Devonshire; geological district maps, divided into eight sections, in which will be shown the boundary lines of each parish, height of hills, sources of rivers, &c.; maps of St. Just, St. Ives, Marazion, Helston, Gwennar, Chiverton, Bodmin, Liskeard, Devon Great Consols, Ashburton, and Exmouth mining districts, showing boundary lines of each property, with the lodes, &c., traversing them.

It also contains transverse and longitudinal sections of Dolcoath Mine (kindly supplied by the late Captain Charles Thomas); section of workings in Bodallan Mine (supplied by the manager, B. H. James, Esq.); longitudinal sections of workings upon the main lode in Great Wheal Vor and Tresavean Mines; geological map of the Fowey district (supplied by Major Davis, R.M.); historical account of the Devon Great Consols, and of all the principal mines in the two counties.

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains:—Lectures at the Royal School of Mines (remarks thereon by Mr. N. Ennor)—The Shropshire Coal Fields, No. IV., by Mr. John Randall, F.G.S.—On Boiler Explosions, No. II., by "M.E."—Nitro-Glycerine and Dynamite, by Capt. W. Hoskin—The New Blasting Agents—Lead Smelting—Preparation of Magnesia employed as a Refractory Material, by Mr. C. H. Dowling—Improvement of Iron and Puddled Steel by an Alloy with Wolfram, by Messrs. A. Keiffenheim and Co.—The Darien Canal, No. XIX., by Dr. E. Cullen—Mineral Resources of La Plata States—Mining in Mexico—Mining on the Rhine, No. I.—Our Commercial Position: Trading Companies as a Medium of Investment—The Progress of Mining as a Science and Source of Commercial Wealth—The New Quebrada Company—St. John del Rey Gold Mining Company, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, MAY 8, 1868.

COPPER.			
	£	s. d.	£ s. d.
Best selected, p. ton	83	0 0	85 0 0
Tough cake and tile	81	0 0	83 0 0
Sheathing & sheets	84	0 0	88 0 0
Bolts	83	0 0	
Bottoms	88	0 0	90 0 0
Old (Exchange)	70	0 0	
Burra Burra	84	10 0	85 0 0
Wire.....per lb.	0	1 0	0 1 0½
Tubes	0	0 11½	1 0
BRASS.			
	Per lb.		
Sheets.....per lb.	9d.-10d.		
Wire	8½d.-9½d.		
Tubes	10½d.-11d.		
Yellow Metal Sheath.p.lb.	7½d.-8d.		
Sheets	7d.-7½d.		
SPELTER.			
	Per ton.		
Foreign on the spot. £20	5 0-20 7 6		
" to arrive .. 20	5 0-20 7 6		
ZINC.			
	£26	0 0	—
In sheets			
TIN.			
	£98	0 0	—
English blocks			
Do., bars (in barrels)			
Do., refined			
Banca			
Straits			
TIN-PLATES.*			
	Per box.		
IC Charcoal, 1st qua.	1	6 0	10 0
IC Ditto, 1st quality	1	12 0	16 0
IC Ditto, 2d quality	1	4 0	7 0
IC Ditto, 2d quality	1	10 0	13 0
IC Coke	1	2 6	1 3 6
IC Ditto	1	8 6	1 9 6
Canada plates,p. ton.	13	10 0	
Ditto, at works	12	10 0	
IRON.			
	Per ton.		
Bars Welsh, in London	6 5	0 0	—
Ditto, to arrive	6 2	6 6	5 0
Nail rods	6 15	0 7	0 0
Do., in London	7 6	8 10	0 0
Bars ditto	7 5	0 9	10 0
Hoops ditto	8 2	6 15	0 0
Sheets, single	8 15	0 11	0 0
Pig No. 1, in Wales	3 15	0 4	5 0
Refined metal, ditto	4 0	5 0	0 0
Bars, common ditto	5 10	0 15	0 0
Do. mch. Tyne or Tees	6 10	0 0	0 0
Do., railway, in Wales	5 10	0 5	15 0
Do., Swed. in London	10 0	10 0	0 0
To arrive	10 0	10 0	0 0
Pig No. 1, in Clyde	2 12	9 2	16 6
Do. f.o.b. Tyne or Tees	2 6	—	—
Do. Nos. 3, 4, f.o.b. do.	2 6	6 2	7 0
Railway chairs	5 10	0 15	0 0
" spikes	11 0	0 12	0 0
Indian Charcoal Pigs.			
	p. ton.	7 0	0 7 10
STEEL.			
	Per ton.		
Swed., in kegs(rolled)	14 5	0 0	—
(hammered)	14 15	0 5	10 0
Ditto, in faggots	16 0	0 0	—
English, spring	17 0	0 23	0 0
QUICKSILVER (p. bottle)	6 17	0 0	—
LEAD.			
	Per ton.		
English Pig, com.	19 7	6 0	—
Ditto, L.B.	19 12	0 0	—
Ditto, W.B.	21 5	0 0	—
Ditto, sheet	20 5	0 0	—
Ditto, red lead	20 15	0 0	—
Ditto, white	27 0	0 30	0 0
Ditto, patent shot	22 10	0 22	15 0
Spanish	18 15	0 19	0 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—During the past week the Metal Market has still continued to develop the improvement which had previously commenced; and, though slowly, business appears steadily to be advancing onwards towards a more desirable condition; and as confidence becomes more thoroughly established, it will, no doubt, be seen that the improvement becomes much more rapid. The Money Market is also becoming decidedly firmer, and it was thought by no means improbable that the directors of the Bank of England would have raised the official minimum at their meeting on Thursday; they did not, however, do so, and the rate still remains at 2 per cent; but as there seems every likelihood that the money market will continue its present improved appearance, an advance in the Bank rate of discount is pretty certain to take place ere long, especially as it appears that in other quarters higher rates are already asked; and it must be expected that when there is a greater demand for money, caused by increased commercial business, the present low rate of interest cannot any longer be maintained. The recent advices from India have not been quite so encouraging as formerly, and the orders received have rather fallen off; still it is to be hoped that this will only be temporary, and that we shall soon receive more favourable intelligence, as the metal market greatly depends upon the orders from India, and is sure to be affected in one way or other by the state of business there. The prices of metals generally have not undergone much change during the week, though in some instances an increased tendency to firmness is perceptible; and it may be expected that this will become much more extended as a nearer approach is made to an active and vigorous condition of the metal trade.

COPPER.—The market for this metal still shows an upward tendency, and considerable sales of Wallaroo have taken place early in the week at 82½, 15s. to 83½, cash, and afterwards at 83½, 10s. cash; 200 tons Chili bars have been sold at Liverpool, for arrival, at 77½, 10s.

IRON.—In Staffordshire a few of the leading houses are receiving small orders from the home merchants, but, as a rule, the demand is dull, and while prices are very low, tenders for the district are in a large number of cases underbid in the market. A good many contracts are said to be taken in Belgium, which usually come to South Staffordshire. If all the puddlers were at work they would, unless an improvement takes place, not have much more than half work. In Welsh, the trade of the district has not shown any further indications of improvement, the disputes with the men in other localities having rather checked the improved feeling which had commenced to manifest itself. Home business is quiet, the railway companies being comparatively small purchasers, their engagements being mainly confined to immediate necessities. Requirements are known to be considerable, and this gives confidence that larger orders will shortly find their way to the market. The Russian season has commenced, and it is expected that the clearances to that quarter will be fully equal to, if not greater than, last year. The exports to the United States are considerable, while for South America the demand is small. In Swedish iron the demand is now good, and several parcels have been disposed of. In Scotch pig-iron there has been only a limited business done during the week, and prices have remained almost stationary. The last price received from Glasgow was 52s. 1d. cash.

LEAD.—The demand still continues only moderate, and prices are not quite so firm as they were.

TIN.—The market for Straits has not been very active during the week, and prices have somewhat fluctuated; at the commencement of the week a parcel was sold at 92½, 10s. cash, but has since rather improved, and business has been done at 93½, cash, and afterwards at 93½, 10s. cash, at which it still remains. Banca may now be quoted at 96½. English is firm at smelters' prices.

SPELTER remains very quiet, and little or no business has been done during the week. The stock in London on April 30 was 1130 tons, being a decrease of 42 tons only during the month.

TIN-PLATES.—The demand is less active, and prices are somewhat easier.

STEEL AND QUICKSILVER are without change.

Business in the **MINING SHARE MARKET** this week has been rather more active, but without any material alteration in prices generally. Among those which have advanced are Prince of Wales, Emily Henrietta, East Caradon, Chontales, Chiverton Moor, Wheal Seton, and Chiverton Valley. West Chiverton shares have been rather weaker, and transactions have taken place in Marke Valley, North Crofty, Wheal Grenville, East Grenville, Clifford Amalgamated, Wheal Mary Ann, North Laxey, and a few others. The standard for copper ore has again declined 1½, which makes a fall in three weeks of 7½, 5s., and in the face, too, of increased firmness in the copper trade, and decreasing shipments from Chili! West Chiverton shares have been flatter, and leave off at 64 to 65; the decline was owing to an accident to the inside boiler, which exploded on the 1st May; fortunately no lives were lost, though one man was seriously injured. The mine was in full operation again by Monday morning, and the damage, confined to the surface, will not exceed 3000; the mines continue to look well. Carn Brea, 17 to 19; Clifford Amalgamated, 5½ to 5½. Prince of Wales shares have been firmer; soon after our last they rose to 54s., and leave off 50s. 6d. to 52s. 6d.; ore appears to be coming in

both east and west in the 65, and the 136 tons of ore sampled is very rich, and estimated to produce 11000. Cook's Kitchen, 10 to 11; East Caradon shares have advanced to 4½, 5; East Carn Brea, 1 to 1½; East Lovell, 8½ to 8½; East Russell, 12s. 6d. to 17s. 6d.; East Wheal Grenville, 35s. to 37s.; Frontino and Bolivia, 10s. to 12s.

Chiverton Moor shares have advanced to 6½, 6½; the 75 west has very much improved, producing good stones of ore, and the whole of the lode saving work. Frank Mills, 1 to 1½; Great Laxey, 16½ to 17½; Great Retallack, 2 to 2½; Great Wheal Vor, 16½ to 17½; Herodsfoot, 39 to 41, and mine looking well; Marke Valley, 6½ to 7; North Crofty, 2½ to 2½; Wheal Emily Henrietta, 37½ to 42½; South Frances, 18 to 20. At the meeting, held on Monday, the accounts showed a profit on the two months' working of 1097, 4s. 2d., and a balance in hand of 8107, 7s. 7d. The costs had been increased by the erection of 16 additional heads of stamps, which will be at work in a few days, and increased returns of tin made. The various points of operation in the mine are worth in the aggregate 557, per fathom. North Treskerby, 17s. 6d. to 20s.; Providence Mines, 27½ to 28½. Wheal Buller, 8 to 10. At the meeting the accounts showed a balance against the company of 7147, 17s. 3d., and a call of 17, 10s. per share was made. The tin sold during the quarter realised 15667, 14s. 8d.; copper, 1667, 0s. 1d. The bills have been heavier this quarter, and the machinery has had to be put into a more efficient state of repair. The agents hope for the ensuing quarter about the same quantity of tin and copper. West Prince of Wales, 9s. to 11s.; the lode has been cut through, and is 6 feet wide, of a very promising character, and it only requires, the agent thinks, to get through the cap of red killas (peculiar to the district) into the blue to find the lode very productive. South Caradon, 395 to 405; South Crofty, 15 to 17; Tincroft, 14 to 15; West Caradon, 5 to 5½; West Seton, 205 to 210; West Tolgus, 45 to 48; Wheal Chiverton, 2 to 2½; Wheal Grenville, 34 to 36; Wheal Margaret, 5 to 6.

Chontales Gold shares have been firmer, but leave off 2½ to 2½; as these shares have declined more than 2½, per share, chiefly on the reports that the capital of the company would be insufficient (after the extravagant outlay in roads, tramroads, and machinery) to bring the mines into a profitable state, we gave, the week before last, a statement of the accounts, obtained from official sources, and added that should any further capital be required a proposition would probably emanate from the directors, whereby the money could be raised in a way, we thought, to give general satisfaction; and as a meeting has since been held on the subject, we may, perhaps, without impropriety, refer more particularly to the plan proposed. The company is at present in 45,000 shares, all representing 5½ paid up; but of these, 15,000 are "royalty shares," given towards the purchase of the mines, as nominally 5½ paid, but not to partake of dividends until the 30,000 ordinary shares receive 15 per cent. It is proposed, therefore, as the directors, we presume, have power to deal with these shares on behalf of the company, to admit them upon an equality with the 30,000 shares on payment of 1½, 10s. per share, by which means, supposing all the royalty holders to fall in with the plan, a sum of 22,500, would be raised. The advantages of the plan are these—the royalty holders, by a payment of 1½, 10s. per share, would make their shares (non-votable) marketable, and of as much value as the others. To the whole company it would give more than ample capital for all requirements, ensure early profits, and take an incubus from the concern which for months has been weighing it down.

Wheal Mary Ann, 21½ to 22½; Wheal Seton shares have advanced to 80½, 82½; Wheal Trelawny, 8 to 9. Wheal Uny, 2 to 2½; the lode cut in the 120 winze is worth for tin 350 to 400, per fathom. In the 130 it is worth 257, per fathom, and the 140 east will, in a few fathoms, come under this run of valuable ground. The mine is now making profits. Gawton, 2½ to 2½; at the meeting, on Thursday, the accounts showed a profit of 1867. The tutwork points had considerably improved. The 70 west is valued at 4 tons of ore per fathom, the 60 east from 4 to 5 tons, and the winze sinking below the 60 fully 6 tons of copper ore per fathom.

The Market for Mine Shares on the Stock Exchange during the week has been rather dull, and prices generally have declined. Don Pedro shares, after touching 2½ prem. buyers, declined to 1½, 2. St. John del Rey shares were firm in the early part of the week, but subsequently became flat, and close 18½ to 19½. Chontales shares have fluctuated between 2½ and 3, closing 2½ to 2½. Anglo-Brazilian are steady at 3-16ths to 5-16ths prem.; Anglo-Italian, par to ¼ prem.; Port Phillip, 1½ to 1½; Rossa Grande, par to ¼ prem., and enquired for. Yudanumutana shares are rather less firm. In British Mines there has been a fair business doing. Prince of Wales shares rose to 52s. 6d. buyers, and close 50s. to 52s. West Chiverton shares were rather more offered, owing to a boiler explosion, which has been remedied at a very trifling cost, but subsequently rallied to 64½, 65½, and firm at quotations; the mine is looking better than ever. Chiverton shares deserve attention at the reduced quotation of 2½ to 2½. Chiverton Moor shares are steady at 6½ to 6½. Chiverton Valley, 4½ to 5; the prospects are very good. Great Wheal Vor, 15½ to 16½; Great Laxey, 17 to 17½. Glan Alun, 7s. to 8s.; the lode in one of the sumps that will be available when the water-wheel goes to work is worth 6 tons per fathom, and the side lode will be cut in about a month's time. The channel of ground is very favourable driving towards the lode, and large stones of ore being met with. Minera, 165 to 175.

At Camborne Ticketing, on Thursday, 2063 tons of ore were sold, realising 9927½, 2s. 6d. The particulars of the sale were:—Average standard, 1107, 13s.; average produce, 6½; average price per ton, 4½, 16s.; quantity of fine copper, 141 tons. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Apr. 2....	3151	£118	6 0	....	14s. 7d.	£73 0 0
" 9....	1827	122	16 0	....	4 7 0	15 1
" 23....	4004	117	12 0	....	4 16 6	15 0
" 30....	1726	109	18 0	....	5 5 0	14 5
May 7....	2063	110	13 0	....	4 16 0	14 1

Compared with last week's sale, the decline has been in the standard 1½, and in the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month, the decline has been in the standard 7½, 5s., and in the price per ton of ore about 9s. 6d.

At the Swansea Ticketing, on Tuesday, 2526 tons of ore were sold, realising 30,154, 3s. The particulars of the sale were:—Average standard for 9 per cent. produce, 99½, 3s. 6d.; average produce, 15½; average price per ton, 11½, 10s. 9d.; quantity of fine copper, 391 tons 11 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Apr. 14, 1867....	£99	10 0	....	17	£13	3 11
May 5, 2526....	29	3 6	....	15½	11 10	9

Compared with the last sale, the standard has declined 6s. 6d., which does not materially affect the price per ton of ore. On May 26 there will be offered for sale 3238 tons of ore, principally from the Cape and Ireland.

IRISH MINE SHARE MARKET.—This was favoured with considerable animation during the week, but leaves off rather flat. Connoree advanced 3d. per share, having been in request at 4s. 3d., offering fair inducement for speculative investment, although holders of these shares are expected to make a reasonable contribution towards re-arranging the affairs of the company and resuming the promising working of the mines. Mining Company of Ireland shares (7½ paid) made a strong upward movement to 20½, thus realising an advance of 5s. per share on last week's quotation, but an increase of sellers has brought them again to 19½, 15s., leaving off buyers, sellers at 19½, 17s. 6d. Wicklow Coppers (2½, 10s.) suffered for one or two days a drop of 2s. 6d. per share, but they have gone up again to the previous price of 14½, 10s. per share. The Connoree Mining Company held an adjourned meeting on Saturday last, the 2d inst. Mr. Flavelle addressed the meeting, in the unavoidable absence of Mr. McCready, the Chairman of the committee, and stated that the shareholders' subscriptions lodged in the Royal Bank amounted to 16967, 15s., and that 7000, due to some of the directors had been engaged to be taken out in debentures, bringing up the total sum subscribed to 23967, 15s., or, including further promises from shareholders, to 30000; that about 4000, additional was wanted to meet the requirements of the company, and to place the concern again under its own control; but it was of no use any shareholders holding back in the hope that others would pay for them. All other arrangements, he said, were progressing satisfactorily. Mr. Greer, the official

liquidator, stated that since his appointment the working expenses of the mine had amounted to 4967. 12s., but the greater portion of this had been applied to pressing claims. He acknowledged the liberality of the Dublin, Wicklow, and Wexford Railway Company, in affording him a free pass to and from the mines, thus setting a good example to other railway companies over whose ways officials have to travel to works which furnish goods for transit, or are likely to do so. The meeting adjourned to this day.

A fortnight ago we noticed the increased life that had been thrown into mining in the Redruth district by the fine prospects opening out at WHEAL EMILY HENRIETTA. When we wrote the shares were about 307, but before our observations were in print they had jumped to above 407, on water or stones of ore being out in the 70 sooner than had been anticipated. Immediately afterwards, on a rumour (which has turned out to be wholly unfounded) of a falling off in the 60, the shares dropped back to 327, since which, however, they have rallied to their old price, and it is thought are likely soon to advance very much higher. We have almost to go back to the days of East Caradon since any new mine has shown such prospects, which is very cheering to the district, and, indeed, to Cornish mining generally, as showing the resources, in virgin ground, of even the oldest of the mining districts of the county.

The letters of allotment of the SAO VICENTE MINING COMPANY (Limited) will be issued on Monday, provided they are received from the Stamp Office by that date.

At the Miners Mining Company meeting, on May 1, the directors declared a dividend of 90000. (5s. per share) out of the profits of the three months' working, up to March 31. This mine has already paid 2387. 13s. in dividends on each 25s. share.

At the Bronfloyd Mine (quarterly) meeting, on April 30 (Mr. Henry Hutton in the chair), the accounts showed a credit balance (cash and ore) of 13067. 5s. 4d. A dividend of 3007. (6s. per share) was declared. The reports stated that the mine was in first-rate working order and that the reserves were good. It was agreed that the report recommended in the report should be at once put in hand.

At the Gawton Copper Mine meeting, on Thursday (Mr. Chiverton in the chair), the accounts showed a credit balance of 1867. 8s. 11d. The committee of management were re-elected. Details in another column.

At Wheal Buller meeting, on Tuesday (Mr. Henry Milford in the chair), the accounts for the three months ending March showed a debit balance of 7147. 17s. 3d. A call of 11. 10s. per share was made. It was resolved "That in consequence of the ill health of Mr. Francis Pryor, his services as manager of this mine be respectfully dispensed with."

At Frank Mills Mine meeting, on Tuesday (Mr. Wm. Porter in the chair), the committee reported that since the meeting on Feb. 13 the returns have been 32127. 13s. 11d.—against 29587. 14s. 4d. for the previous quarter. The balance of liabilities over assets at the last meeting was 6037. 10s. 4d. The accounts show that it is now reduced to 3337. 5s. 1d., and the committee anticipate being able by the next meeting to considerably reduce this amount. Capt. J. P. Nicholls, J. Cornish, and F. Cornish, say—"The tribute department now consists of nine pits, working by 22 men, at tributes varying from 2s. to 5s. per ton. This department also is yielding an average quantity of lead ore, with very fair prospects of continuance. The mine throughout is in general good repair, and all the machinery in very efficient working order. The total number of persons we have at present engaged is 165."

At South Wheal Frances meeting, on Monday (Mr. R. R. Broad in the chair), the accounts for February and March showed a credit balance of 8107. 7s. 7d. The profit on the two months' working was 1097. 4s. 2d. Capt. Pascoe and Prisk reported upon the various points of operation. With reference to the new stamps, 16 heads are complete, and the machinery on the dressing-floors is in a forward state, and in course of another week they hope it will be at work, when 16 additional heads will be added, and their returns of tin increased. The erection of the new stamps has interfered with operations, and the cost charged on account thereof has diminished the return of profit.

At Penden Consols Mine general meeting, on Tuesday, the accounts for three months ending March showed a debit balance of 9447. 4s. 7d., of which amount 2697. 15s. 5d. has been expended in connection with the 40-in. pumping-engine, erected last month. After estimating the April cost and returns, the balance against the mine is (estimated) 1457. 3s. 5d. The accounts were allowed and passed. A call of 6s. per share was made, and the committee re-elected. Capt. Richard White (the manager) writes—"The importance of this engine to the mine we cannot over-estimate. The sinking of the engine-shaft may prove to be the salvation of the mine. We consider the indications very favourable. We shall now be raising more tin. I am very strongly of opinion that we shall discover something really good before another meeting."

At Wheal Sparrow general meeting, on Tuesday (Mr. W. Jardine in the chair), the statement of accounts showed a debit balance of 7757. 7s. 8d. A call of 3s. per share was made. The agents reported that the new shaft, on the north lode, had been sunk 7 fathoms since the last meeting, and there was every opportunity of proving all their present points without any water charges.

At Peden-an-drea United Mines general meeting, on Tuesday (Mr. C. Martin in the chair), the accounts showed a balance of liabilities over assets of 2857. 1s. 1d. A call of 6s. per share was made. The agents in their report state that in the 68 east, where they formerly raised a large quantity of tin, until the workings had become so extensive that it was very difficult to reach the best part of the ground, when their returns from here fell off. A few weeks since a great part of the ground they had always considered very desirable to reach fell in to the extent of some 4000 tons. In this ground they believe there are several good bunches of tin, and as they will soon be in a position to take it away advantageously, they expect this will enable them to increase their returns until they are in a position to gain more permanent advantages from the ground now being opened in the western levels. Looking at the 120 west, where they have a valuable improvement; the prospects of improvement in the 130 west, from getting under the same run of tin ground; the prospects in the 140 west, from approaching the junctions of the lodes; the advantages they expect to derive from the 68 east, together with the good prospects of a further advance in the price of tin, they expect to be able to show a better return than they have done. The piece of ground now before their western levels promises well to enable them to show a very satisfactory result.

At the Baldwin (Isle of Man) Mining Company half-yearly meeting, held at the Clarence Hotel, Manchester (Mr. John Windsor in the chair), the directors' report held out the expectation that the mine would soon be in a position to pay at least a portion of the cost of working; and, at the same time, the "indications were such that at any time a body of ore might be met that would enrich the whole of the shareholders." A report from Messrs. Dennis and Glennie, mining engineers, of London, was also read, in which they spoke in favourable terms of the mine. These reports, which were received with expressions of satisfaction by the meeting, having been adopted, the proceedings terminated with the usual votes of thanks.

At Rosewell Hill meeting, on April 29, the accounts for the eight months ending November showed a debit balance of 3897. A call of 5s. per share was made. The future return of tin is estimated at over 40 or 45 tons per quarter. The agents conclude their report by stating that the tin represented as being deposited on the floors at the time the alterations were made is still untouched, with the exception of 2 or 3 tons.

At the United Mexican Mining Company (half-yearly) meeting, on Wednesday (Mr. Charles Morris in the chair), the report of the directors and balance-sheet were received and adopted. A call of 2s. 6d. per share was made. Details in another column.

At the Companhia de Mineração do Azambujeira meeting, held at Lisbon on April 17 (Senhor F. Pereira de Magalhães in the chair), the report of the directors, having been previously circulated amongst the shareholders, was taken as read. The directors congratulated the shareholders upon having passed through the first years of the existence of a company, and with them the risks and uncertainties inseparable from mining enterprise, and that they have now reached an epoch in which, without the necessity of further risks and further pecuniary sacrifices, they may hope for profits proportioned to their energy and perseverance, and to the amount of capital effectively disbursed. The prosecution of the works give ample evidence of their riches, and demonstrate the great value of the regions into which they naturally divide themselves—the pyrites district, or Humboldt, and the sulphur district, or Do Valle, and that the latter is even much more extensive and productive than the first. They have commenced already the exportation of mineral, and hope to be able to continue to make regular shipments. The quantity already exported has been about 90 tons, in two shipments; for the first 211. 10s. per ton was realised for the first quality ore, and 18s. for the second quality. The result of the sale of the second shipment was not known at the date of the report. The mine is already paying cost, and it is estimated that not more than 75 or 80 per cent. of the nominal capital will have to be called up in all. There is every probability that the extraction and exportation of the mineral will go on increasing, so that, without the necessity for further disbursements on the part of the shareholders, the enterprise will be able to give those profits which have been promised. In the middle of February the company was indebted about 10 contos of reis. The recommendations of the fiscal commission were put to the vote, and unanimously approved.

The Scottish Australian Mining Company half-yearly meeting is fixed for Friday, when a dividend is to be declared. The meeting will then be made special, and a resolution proposed to increase the company's capital.

The directors of the Kapunda Mining Company have declared a dividend of 6d. per share (free of income tax), payable on and after May 19. Pursuant to the Articles of Association, the general meeting will be held in June.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 153,305l., which is represented by a corresponding decrease in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown an increase in the "public deposits" of 328,218l., in the "other deposits" of 292,152l., and in the "seven day and other bills" of 6382l.; together, 626,752l.; and a decrease in the "rest" of 5797l.—=620,555l. Deducting this from 1,154,629l., the increase in the "other securities" on the asset side, there remains a decrease in the total reserve of 533,574l. The heavy changes are doubtless caused by the ordinary monthly settlements, and do not present anything at all remarkable.

On the Stock Exchange the following prices were officially recorded during the week in British Mining Shares:—Devon Great Consols, 449; Marke Valley, 61; East Caradon, 41, 42; West Chiverton, 641; Wheal Mary Ann, 221, 222; In Colonial Mining Shares the prices were:—Vancouver, 4, 8, 42; Cape Copper, 11, 11, 11; Yudsona-

mutana, 11, 15-16ths; Port Phillip, 11, 19-16ths; Worthington, 7-16ths. —In Foreign Mining Shares the prices were:—Chontales, 2, 2, 2, 2, 2; Rossa Grande, 1, 1-16th, 1/2 prem.; St. John del Rey, 19, 20, 19, 20, 19, 19, 11, 11; Pestarena, 2 11-16ths; Don Pedro, 11-16ths, 2 prem.; United Mexican, 1, 1; Anglo-Brazilian, 1, 13-16ths, 11-16ths

COAL MARKET.—The fresh arrivals this week number 136 ships. The market for household coals has been very heavy, and we quote a reduction in prices of 1s. per ton, which had the effect of stimulating the demand, and but few cargoes remain over. Hartley coals have remained steady, and without change in value. Hetton Wallsend, 17s. 6d.; Haswell Wallsend, 17s.; Kellie Wallsend, 15s.; South Hartlepool Wallsend, 15s.; Eden Main, 15s.; Hetton Lyon's Wallsend, 14s. 6d.; Braddyll's Wallsend, 15s. 6d. Unsold, 13 cargoes; 20 ships at sea.

THE TIN TRADE.—Messrs. Von Dadelzen and North (May 2) write —The quantity of tin here and in Holland on April 30 was as follows, compared with the three preceding years:—

	1867.	1868.	1869.	1870.
Stock in Holland	119,211=3689	163,016=5237	147,263=4710	42,390=1350
Arrived for next sale	39,066=1840	35,948=1152	66,163=2120	163,201=5230
Billion in Holland	260	470	300	—
Stock here	1869	2518	3350	3337

Total tons 7488 9377 10,480 9907
The quantity of tin now afloat for England is 1592 tons, against 962 tons last year; to the Continent, 60 tons; and to America, 601 tons. We estimate the present stock in warehouse here at 1699 tons.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (May 8) write.—Transactions have taken place in Chili produce for a fair extent, and at rather higher prices than those reported last week. For two cargoes of regulus (together 1000 tons) 15s. 10d. per unit has been paid by smelters. About 650 tons of bars have been sold, at prices varying from 77s. spot, to 77s. 10s. and 77s. 10s. for favourite brands to arrive: 220 tons of refined ingots have brought 80s. The Liverpool market closes very firm, with little obtainable at the above prices. It is understood that the charters of Chili produce for the second half of March will amount to only 1100 tons of fine copper, the news having arrived, via New York, in anticipation of the regular mail, due in the middle of this month. In fine foreign copper a fair business has been done, 250 tons of Wallaroo having sold at 82s. 10s. up to 83s. 10s. cash, and a small parcel of Burra at 84s. In English raw copper there is not a very active business, but the general tone of the market is very healthy.

BISMUTH ORE.—A QUANTITY, from AUSTRALIA, FOR SALE, BY PUBLIC TENDER, early in June next. For particulars, apply to—JAMES AND SHAKESPEARE, 10, Austinfriars, London.

GRANITE QUARRIES.—For particulars concerning an EXCELLENT SITE for GRANITE QUARRIES, immediately adjoining a Railway, apply to—H. J. MOULE, Gatehouse, Stewartry of Kirkcubright.

ORREL COAL COLLIERY, WIGAN.—WANTED, A PARTNER, TO TAKE THE PLACE OF ONE OWNING A SIXTH PART, who is retiring from business. Apply to ASTROP CARLIS, Accountant, Cook-street, Liverpool.

TO COLLIERY PROPRIETORS.—An experienced Traveller, now resident in Bristol, desires an ENGAGEMENT as AGENT or MANAGER. The Advertiser has represented a colliery, and has a CONNEXION AMONGST LARGE CONSUMERS AND BUYERS OF COAL. The highest testimonials and references can be given. Address, "H.," 12, Somerset-square, Bristol.

MONEY.—A Gentleman would ASSIST with MONEY in CARRYING OUT any thoroughly FEASIBLE SCHEME, with an equitable arrangement as to profits, or would INVEST in MINING PROPERTY. Address, with full particulars, in strictest confidence, to "K.," care of Mr. Bailey, Stationer, Streatham-place, Brixton-hill, S.W.

WANTED, FOUR THOUSAND POUNDS, upon SECURITY of an EXCELLENT COLONIAL COLLIERY. Apply, with real name and address, to J. H. HOWARD, Esq., solicitor, Quality-court, Chancery-lane.

WANTED, by a Gentleman who has had large experience in the IRON and COAL TRADES, a SITUATION as SECRETARY or CASHIER. Unexceptionable references and security. Address, "Iron Trade," Post Office, Stafford.

WANTED TO PURCHASE, SHARES in the LUCY PHILLIPS GOLD AND SILVER MINING COMPANY (LIMITED). Principals only requested to apply, by letter, stating lowest price to "A. R. M.," Office of the MINING JOURNAL, 26, Fleet-street, London, E.C.

A MINING AND ENGINEERING SURVEYOR, of much experience, is OPEN TO AN ENGAGEMENT. Highest references. Address, "M. S.," Book Stall, Railway Station, Chesterfield.

FOR SALE, the RICH MINES at NOSEKILL, near ARENDAL, in NORWAY, renowned for their good IRON ORE. Easy access to shipping port. For price and conditions, apply to the BRITISH VICE-CONSUL, at Skien, Norway.

IRON ORE.—FOR SALE, 4000 to 5000 tons IRON ORE, from the NOSEKILL MINE, near ARENDAL, in NORWAY. For particulars, please apply to JOHAN VAUVERT, Agent, Skien, Norway.

TO BE SOLD.—A FIRST-CLASS NEW 14-horse power PORTABLE STEAM-ENGINE, with all recent improvements. Several GOOD SECOND-HAND PORTABLES TO BE SOLD, CHEAP. Apply to T. W. BARROWS, Engineer, Banbury.

ENGINES FOR ABSOLUTE SALE.—A 36 in. cylinder ROTARY ENGINE, 8 ft. stroke, equal beam, 10 ton fly-wheel, fly-wheel shaft, with 10 ton boiler; 18 in. cylinder WINDING ENGINE, 7 ton boiler, with fly-wheel and whim cage. The engines must be sold, and a low price will be accepted. For further particulars, apply to Mr. THOMAS JAMES, Engineer, St. Austell, Cornwall.

CORNISH COPPER MINING.—A COMPANY is being FORMED for the RE-WORKING, and the PRELIMINARY ASSIGNMENT, to, of a VALUABLE MINING PROPERTY, situated in one of the finest districts, and surrounded by several of the most profitable undertakings of the day. The shares are 20 in number, and issued at £50 each. Four or five bona fide shareholders required for not exceeding two shares each.

Applications, with a remittance of the purchase-money, to be made to, and which will be returned in full if the applicant should not be accepted by Messrs. HARRISON and Co., Crown-chambers, Threadneedle-street, London, E.C.

THE WYE LEAD MINING COMPANY (LIMITED).

Prospectuses of this very valuable lead mine can be obtained from J. H. MURCHISON, Esq., 8, Austinfriars, London, E.C. There are only 400 shares of £20 each, payable by £5 instalments, and immediate application should be made for the same.

While COPPER and TIN have been very DEPRESSED in PRICE during several years past, and, indeed, are subject to frequent fluctuations, LEAD has been comparatively STEADY, and is generally so. In proof of this, it may be stated that while in 1862 only 13 public lead mining companies divided a sum of £70,590, last year (1867) 18 divided £127,290. In the public Share List there appear 47 dividend mines, of which 20 produce lead, and show the following most favourable results:—

The aggregate amount of their paid-up capital is..... £ 468,073
They have paid in dividends..... 1,263,587
Their aggregate market value is..... 1,372,657
Of these 20 mines 9 are situated in Wales, and have paid considerably more than half of the above amount of dividends. There are other lead mines in Wales and elsewhere, in private hands, and, therefore, not included in the list, that are making good profits.

8, Austinfriars, London, E.C.

THE SAO VICENTE MINING COMPANY (LIMITED),

BRAZIL.
Capital £50,000, in 10,000 shares of £5 each.

HENRY HAYMEN, CHAIRMAN—Chairman of the Don Pedro North del Rey Gold Mining Company (Limited).

CONSULTING ENGINEER.
CAPT. THOMAS TRELOAR, Consulting Engineer of the Don Pedro North del Rey Gold Mining Company.

BANKERS.
THE IMPERIAL BANK (LIMITED), 6, Lothbury, London.

SOLICITORS.
Messrs. WILKINS, BLYTH, and MARSHALL, 10, St. Swithin's-lane, E.C.

AGENTS.
Liverpool—Messrs. J. BRAMLEY MOORE and Co.
Brazil—Messrs. JOHN MOORE and Co.

BROKER.
J. H. GOULDING, Esq., 8, Warneford-court, Throgmorton-street, London, E.C.

SECRETARY.
Mr. FREDERICK W. SMITH.

TEMPORARY OFFICES,—12, BISHOPSGATE STREET WITHIN, E.C.

The LETTERS OF ALLOTMENT will be ISSUED on MONDAY next, the 11th inst., provided they are received from the Stamp Office in time.

BIRMINGHAM FINANCIAL COMPANY (LIMITED),

OFFICES,—WATERLOO STREET, BIRMINGHAM.

CAPITAL,—HALF A MILLION,
Reserve fund, £12,000.

ADVANCES made upon approved real and other securities.

DEFERRED PAYMENTS on Wagon Leases and other contracts purchased or advances made thereon.

HENRY ALLBUTT, Secretary.

AMERICAN MINES.

MR. R. P. ROTHWELL, Mining Engineer and Metallurgist,

OFFICE,—WILKES BARRE, PENNSYLVANIA, U.S.

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LEAD ORES.

—Great Laxey.....	100	22 15 6	Stock and Co.
2—Isle of Man Mining Co.	100	24 11 6	Burry Port Company.
—Brynpostig.....	35	11 6 6	....	Adam Eytton.
6—Van.....	100	12 16 0	....	Burry Port Company.
— ditto	100	12 12 6	....	Walker, Parker, & Co.

BLENDE.

April 14—Great Laxey	103	£ 3 17 0	Bagillt Smelting Co.
May 1—Minera	110	4 7 6	H. Southern.
— ditto	44	4 0 6	ditto
— ditto	44	3 6 0	Bagillt Smelting Co.
— ditto	11	3 12 0	ditto
— Great Laxey	200	3 17 0	S. Kenrick.
5—Coetia Llys	128	4 0 0	Bagillt Smelting Co.
—Maes-yr-Erwdun	48	2 18 0	Vivian and Sons.

BLACK TIN.

Date.	Mine.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchaser.
April 30—Prosper United	8	4 0 24	£55 5 0	£ 453 12 9	Mellancar.
May 4—Penden Consols	2	19 3 14	55 5 0	165 8 0	Boltho.
— ditto	0	8 1 23	30 0 0	12 13 6	ditto
— ditto	1	4 1 15	42 0 0	51 4 1	ditto
7—Mary Huteh	5	18 3 21	58 12 6	348 12 8	Calenick.

COPPER ORES.

Sampled April 15, and sold at Swansea, May 5.			
Mines.	Tons.	Produce.	Price.
Knockmahon	120	12 1/2	£9 6 0
— ditto	128	9 1/2	7 5 0
— ditto	92	8 1/2	6 10 0
— ditto	72	8 1/2	6 11 0
— ditto	119	8 1/2	6 5 6
— ditto	129	9 1/2	6 15 0
— ditto	100	9 1/2	7 4 0
— ditto	81	9 1/2	6 18 6
— ditto	13	11 1/2	8 10 0
Cuba	96	17 1/2	13 10 0
— ditto	94	17 1/2	13 10 0
— ditto	93	18	13 10 0
— ditto	4	6 1/2	47 10 0
— ditto	92	18 1/2	13 8 0
— ditto	90	18 1/2	13 6 0
— ditto	70	21 1/2	18 2 6
— ditto	1	52 1/2	36 19 0
— ditto	92	13 1/2	11 11 0
— ditto	91	15 1/2	11 10 0
— ditto	90	15 1/2	11 10 0
Gwalla	68	24 1/2	18 8 6

TOTAL PRODUCE.			
Mines.	Tons.	Produce.	Price.
Knockmahon	854	£ 6,122 10 0	
Cuba	813	10,890 2 6	
Gwalla	291	3,690 3 6	
Cape	84	2,505 5 0	
Almeria	16	71 8 0	

COMPANIES BY WHOM THE ORES WERE PURCHASED:—

Mines.	Tons.	Produce.	Price.
Copper Miners Company	2	£ 34 0 0	
Freeman and Co.	154	1,381 2 0	
P. Grenfell and Sons	402	4,658 12 0	
Sims, Williams, and Co.	129	3,136 9 6	
Vivian and Sons	598	7,311 1 0	
Williams, Foster, and Co.	531	9,060 10 6	
Mason and Elkington	486	3,790 1 0	
Bankart and Sons	27	504 4 6	
Charles Lambert	95	1,865 4 0	
Landore Copper Company	42	986 19 0	

Total 2326 £30,154 3 0

Copper ores for sale at Swansea, May 26—Cape (about) 1100—Knockmahon 960—Berehaven 600—Copper Ore 370—Moonta Ore 96—Ballycumshick 82—Pomona 12—Copper Regulus 9—Casall 9.—Total, 3238 tons.

TOTALS AND AVERAGES.

Whole sale	21 cwt. Produce.	Price.	Standard.
2526	10 1/2	£76 11 9	£99 3 6

COPPER ORES.

Sampled April 22, and sold at Tyack's Hotel, Camborne, May 7.

Mines.	Tons.	Price
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Notices to Correspondents.

*. Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

MOSQUITO LAND WARRANTS.—Some weeks since the holders of these securities were informed that there were prospects of their claims being satisfactorily adjusted, and by the interposition of influential parties other than Gen. Martinez. The Journal being selected as the medium through which the information relative to this subject is communicated, I have written you to ask whether any and what progress has been made since the last meeting, which was presided over by Capt. Belford Pitt, R.N.?—A WARRANT HOLDER.

TAXES ON MINES.—In the very interesting communication from Mr. Alexander Somerville, in last week's Journal, reference is made to an enactment of the Ontario Legislature, taxing all land in proportion to its value as mining property, so that if the property be worthless no tax is payable, whilst if the property be declared to possess great auriferous wealth the tax is in proportion to its richness. Now, I think that in this country both the mining interest and the capitalist would be much benefited by the enactment of a law going even a step farther than this. It should be provided that the sale of mining property for shares in the company formed for working it be absolutely illegal, that no money payment should be made to the vendors of such property, except out of the returns from its workings, and that not more than one-fourth of such returns shall be applicable towards the payment of vendors. As to profits, where any are made, the vendor should be entitled to claim the whole until the full amount of purchase-money has been paid, but should be entitled to claim no interest for deferred payments when made out of returns. Such an arrangement would ensure the provision of ample capital for working mines, would secure capitalists against misrepresentation, and, in practice, would give satisfaction to—ONE AND ALL.

CALDECK FELS (CONSOLIDATED) LEAD AND COPPER MINING COMPANY (LIMITED).—As this mine, by its gradually improving character and increasing monthly sales of ore, seems likely soon to re-occupy the favourable position in the market it once did, I would suggest that the board should instruct the secretary to furnish you for publication the financial result of each month's operations—that is, the amount of cost, and the value of the ore returned. I should also like to be informed whether a considerable number of the shares were not forfeited at the time the offices of the company were removed to Carlisle. If this were the case, it certainly would be as well if the secretary would inform you of the fact, so that the correction might be made in your Share List. As a market anomaly it may not, perhaps, be altogether out of course in this place to call attention to the circumstance that when a large amount of preliminary mining work had to be carried out, involving time and outlay for which calls had to be made, the shares were readily marketable at a premium, but now that monthly profits are being realised, and as the development of the property progresses, its prospects of becoming once more a permanently remunerative mine daily improve, the shares are comparatively neglected, or at any rate, do not command that attention or value which they deserve. I am aware that Sir Robert Briscoe, the Chairman, and his colleagues upon the board, each of whom has a considerable stake in the concern, render unremunerated services, being content to wait until the mine begins to make some return to the shareholders for their outlay; and for this the shareholders are much indebted to their executive. As, however, the general meetings are held but once a year, and as there is no office in London to which present or intending shareholders can repair for information, it is more necessary that the suggestion I have made with regard to the publication in the Journal of the financial result of each month's operations should be carried out.—A LONDON SHAREHOLDER.

CORRE CONSOLIDATED COPPER MINES.—"A Shareholder."—The information required will be communicated at the special general meeting, which will be held in the course of a few days.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, MAY 9, 1868.

The *Times* made some apposite remarks with regard to the mineral statistics of the returns lately published by the Board of Trade, illustrating the trade of several foreign countries, and particularly with reference to Belgium. Belgium has lately attracted a good deal of notice, as the *Times* states, by her rivalry to us in mineral industry; but our contemporary did not probe the matter, though there were figures pointed out well worthy of being examined, and particularly those relating to the importations of English iron into Belgium. This is a key to several operations; they mean, in fact, what are graciously called Belgian, or Anglo-Belgian, operations, and we think we can render a service to the public in making these matters rather more intelligible. It is the opening up of a system of commercial jugglery, developed by the late finance operations, which has already done great damage to the commercial interests of this country, and threatens to do still more, even at the present time. Most of the Anglo-French transactions are nearly as objectionable. It has always appeared very suspicious that a country so limited in resources should appear as a rival to us in large operations, but there was a difficulty in following the matter up—first, because the transactions take place in remote countries, and, next, because the facts have only lately been disclosed. Belgium, of course, does not come into our home market, proffering to assist our capitalists; but her transactions are carried out in remote countries, such as those of South America and the East, and they are so cloaked by the use of the English name that the public have not yet fathomed them. By the publication of these returns and other documents, within the last few days, a clue is at length afforded to part of the mystery.

The report of the Varna and Rustchuk Railway affords one of these illustrations; but instead of beginning at the end, like a lady in reading a novel, it is just as well to begin at the beginning, and the more particularly as people will ask—Where is this Varna Railway, and what have the Belgians got to do with an English company? though it would be much more pertinent to enquire what is the meaning of last week's telegram—that Messrs. VAN DER ELST and Co., representing the Anglo-Belgian combination, have got a concession of several hundred miles of railway? The concession for the Varna Railway, in Turkey, was obtained some years ago by a Belgian resident in Turkey. He could do nothing with it in Belgium, for there were no finance companies there, and he got it taken up by some English contractors and speculative directors, on condition that the Belgians should be represented on the board, and have the supply of the rails and locomotive stock. In Turkey the company figured as an English company. It should be noted that neither Belgians nor English directors subscribed for a pound's worth of shares, but began an operation with Belgian and Frankfurt bankers for issuing debentures at a tremendous discount among Belgians and Germans. The Belgians and their coadjutors hoped in time to place the share capital for their own benefit. This they did not fully succeed in doing, but they did to a very considerable extent by a very beautiful operation with one of our leading finance companies, planting a considerable portion of the shares on the English public.

The Belgians having to furnish the iron could not compass the whole affair, but, as appears from the returns, got a considerable portion from this market. In Turkey the Government authorities were astonished that the English, whom they have always looked upon as the chief industrial nation in Europe, and from whom they had obtained their marine and stationary engines, mint, arsenal, and dockyard plant, were obliged in making a railway to get locomotives and other supplies from the Belgians. Taking the hint, the Government gave a large contract for breech-loaders, not to the English, as usual, but to the Belgians. This was not the end of our disasters. The English contractors failed, as under the finance regime English contracting have failed; the line was opened, after a fashion, under the auspices of the English directors, who went to Turkey for the purpose, and soon, as appears by their report, the Belgian axes and other supplies began to show their technical peculiarities, contributing to the stoppage of the line and its bad working, and this was laid upon the English company.

It was not enough for us to get the discredit, but the Belgians, or Anglo-Belgians, got what plums there were. Throwing the blame of all the failures on the English, and at a time when the SULTAN and Government were red-hot for railways, on their return from England, the Belgians appeared as railway makers and capitalists, in the persons of Messrs. VAN DER ELST and Co., bankers, of Brussels, and obtained the pick of the railway system, for which the English companies had prepared the way. Messrs. VAN DER ELST and Co. have got concessions of the main European line from Constantinople to

Belgrade, joining on to the European system, and two great connecting lines, extending to the ports of Salonika and Enos. Messrs. VAN DER ELST and Co. very generously resolved at an early period not to exclude us from the advantage of contributing capital for their benefit, and they dubbed it an Anglo-Belgian combination, though we believe the English portion, in the shape of English sovereigns and English iron, is yet to come. Two other little incidents meanwhile occurred. The first instalments of Belgian breech-loaders arrived much behind time, and, although wonderfully cheap, were found to possess the usual virtues of the famous Belgian fire-arms, so well known on the West Coast of Africa. The Ottoman Government, seeing these breech-loaders were treating Turkish soldiers like negroes, stopped the supplies, and cancelled the contract. This was the sole check. The other event was this:—The Belgian Ambassador, a mighty personage at Constantinople, on behalf of the Belgian directors and bondholders, placed an interdiction on the guarantee payable by the Ottoman Government, so that the interest professed to be granted by the Belgian and English directors to the English shareholders on their lately-issued shares might not be paid, but appropriated solely to the Belgian and German bondholders, the management of the line being put into the hands of their trustees to pay themselves. The unfortunate English shareholders are now in this mess.

A great many of the Anglo-French and Anglo-Barbarian ventures are of the same description—enterprises to employ English capital and English credit for the aggrandisement of other nations, and the injury of our own people. It is in this way the iron and copper trades, by the perversion of free trade and international treatise, and, it may be added, *credit mobiliers* and other French finance dodges, are being crippled at home, and stimulated in France, Belgium, and Prussia, to our damage. There was one English company which carried on a prosperous business abroad. In an unlucky hour, at the time of an extension of capital, they made an Anglo-French company of it, the French to contribute one-third of the capital and the English two-thirds, and the French to have half the directors. In a short time a Frenchman was put at the head of the concern instead of an Englishman, the very books and documents of the company turned into French instead of English, the French selling off their shares at a premium in England; and the French directors, when they ceased to represent more than a minimum of French stock, employing part of the capital in finance operations in Paris. Apart from the other damage done to us, of course *prestige* was conferred on the French in a foreign country, to our detriment.

It would be very bad if the Belgians or French really contributed the small portion of capital assigned them and got the greater portion of the advantages; but it is far worse, they do not contribute their portion of the funds, but, first or last, get it out of England. One way is for the foreign finance companies or houses, engaged in the proceedings, to keep on drawing on England, and going the round in the exchange market, till such time as they can palm their shares on the English public, commonly at a premium. These credit companies, which we might call discredit companies, are generally connected with the respective Governments, and get aid from the State banks for any operation for the good of their countries, under the sanction of the Minister of Commerce. We never heard of their really contributing for English purposes, except on their being taken in by those famous examples of the order, OVEREND and Co. (Limited) and the Imperial Mercantile Credit Company, who palmed on them some sham accommodation bills just before the era of darkness—Black Friday. The foreigners get great advantages, too, in having something more like limited liability, without official liquidators on LORD CHANCELLOR'S pay. The constitution of these Anglo-French and Anglo-Belgian companies is also exceedingly unfavourable to English shareholders, and very favourable to the directors. The directors are always highly respectable men, titled foreigners and distinguished Englishmen. Somehow it does happen that these highly respectable men do very strange things, they feather their nests in an admirable manner; the shareholders find themselves minus, and, make as much noise as they may, they get no redress. Sometimes the nominal meeting is held in London, but the effective and legal seat of operations, the *domicile of the society anonyme*, is in Paris or Brussels. But at all events, the shares are to be borne, and must be lodged in London many days. None but the directors know the main body of the shareholders. The shareholders may be very audacious, but the directors are very firm, and stand upon their honour. A poll is taken, and large bags of shares, borrowed of the banks and finance companies, give a glorious victory to the directors over their persecutors and calumniators. If the directors choose they wind up with a vote of censure on the disturbers of serenity and blind confidence.

As, in fact, the main body of these highly respectable men, commercial magnates of London by courtesy, are in reality men without real principle, and it very often happens are foreigners, they care very little about the national character of England, or the advancement of its mineral industry; they are citizens of the world, asking no question as to whence money comes, so there is nothing to be hoped from them. The remedy must be sought in some other quarter, and in the meanwhile we think it worth the trouble to point out, for public consideration, a few facts, more particularly and directly affecting our mineral interests, though, if we chose to extend our illustrations, we could show how these Anglo-be-devilled performances extend to steam navigation, gasworks, and other branches of industry, thereby coming down again on our mine adventurers and manufacturers, but none the less on our hardworking mining population.

"THE GREAT METALLURGICAL PROBLEM OF OUR TIME,"

It has been written, is—How to "convert imperfect irons into iron in its best form," which, it is added, "is that of steel." The report in the Journal of last week, describing what took place at the last meeting of the Cleveland Institute of Engineers, is the most recent manifestation of the intense eagerness with which, upon this subject, our leading ironworks, chemists, and engineers are pursuing their investigations. The interest in it throughout the iron-making world of Great Britain is all-absorbing. We have, therefore, taken those steps which enable us to sketch the leading features of the question as it now stands. By a personal visit we have made ourselves familiar with what is being done where the chemical process is in practical operation, and where the products are goods sold in the markets open for such mercantile commodities.

That the value of the much-contested method may be understood by contrast, attention should be briefly called to what took place soon after the reading by Mr. BESSEMER of his famous Cheltenham paper. Amongst the gentlemen who were present in London by invitation of Mr. BESSEMER, and who witnessed the comparative failure at that time of the process, even with Blaenavon iron, was a maker of pigs in South Staffordshire, who was curious to know what would be the result of the use of iron of the class smelted by the majority of the ironmasters present if no more satisfactory issue than the making of scull-iron followed upon the treating of the best cold-blast pigs. He should in particular like to learn what would be the result upon iron of the most inferior character? With a view to the solving of the query, he had some pigs sent to Mr. BESSEMER which had been made with as large a proportion of tap-cinder in them as could at that time be used. The result of the BESSEMER process upon this iron was not to produce steel or even scull-iron, but simply to produce a magnificent display of sparks, in which the whole bulk disappeared. Mr. BESSEMER and Mr. LONGSDEN, however, continued at work, and in two or three years, assisted by the use of spiegeleisen, and the lapsing of Mr. MUSHET'S manganese patents, the process came again before the public. It was received with coldness, and by becoming a manufacturer of steel himself Mr. BESSEMER had to demonstrate the worth of his invention. Enabled now to introduce the requisite amount of carbon into his blown iron, Mr. BESSEMER succeeded in making useful steel, not from Blaenavon and other cold-blast irons alone, but also from the hot-blast hematites now made in abundance in the North Lancashire and the West Cumberland districts. But even with spiegeleisen, or a pure alloy of iron and manganese, Mr. BESSEMER, as is well known, has not yet succeeded in producing a workable steel from any iron inferior in quality to the hot-blast hematites just mentioned.

On every hand, however, it is desired that the great abundance of our poorer ores should be utilised in the making of steel. It is felt that the wants of the few only have been supplied, whilst the many

are still unprovided for. In the discussion which followed the reading of his paper "On the Manufacture of Cast-Steel; its Progress, and Employment as a Substitute for Wrought-Iron," at the meeting of the British Association in Birmingham, Mr. BESSEMER himself remarked that "there was still a large gap, a fine field of discovery for many a clever man for years to come;" and clever men are entering this fine field in great numbers. Chief amongst them is Mr. HEATON, who, at this juncture in the history of mechanico-chemical steel making, is playing a very important part. Up to this period the difficulty which chemists had to contend with in treating molten iron with chemicals was due to the minute specific gravity of the converting substances, as compared with the molten iron. They had not devised any available means for keeping them in a position in regard to the fused mass by which the gases evolved from the chemicals should be prevented from rising to the surface, and spending their energies upon the surrounding atmosphere instead of upon the iron. Mr. HEATON, however, being an engineer as well as a chemist, hit upon the ingenious plan of confining the chemicals at the bottom by covering them with a perforated iron plate, held down by the overhanging edges of brickwork, judiciously placed near the bottom of his converter. Thus, Mr. HEATON became the first of the many experimenters with soda who developed the method so as to make it practicable in a commercial sense, for he is carrying it out at the Langley Steel and Iron Mills, near Nottingham, of which he is the managing director. We have visited these works, and after seeing how the soda system is making sheet-iron and steel of the first quality—as indeed was shown in the samples which we inspected, exhibited at the last quarterly meeting of the Cleveland ironmasters—we confess to much sympathy with Mr. HARGREAVES, who, after the reading of Mr. GJERS paper, showed a piece of excellent steel, made by the method which Mr. GJERS condemned, and, quoting the hackneyed remark of the French theorist, said, "So much the worse for the facts." At Langley Mill the perforated plate, held down as we have described, confines the chemical materials below the mass of molten iron, and obliges the evolved gases, by which the conversion has to be produced, to effectually perform all the work of which they are capable. In this way steel has been produced not alone from the best descriptions of iron, equal to Blaenavon, and from the hematites which are used in the BESSEMER process, but also, and chiefly, from iron made out of the clayband stones. And even a very superior description of refined metal, only a trifle inferior to the best steel, has been manufactured by Mr. HEATON exclusively from the tap-cinder iron which, it will be remembered, Mr. BESSEMER'S process reduced simply to sparks. A specimen of such metal is held by the firm by whom the tap-cinder iron was sent to Mr. BESSEMER, and—makers of steel themselves—they have pronounced upon it as we have here mentioned.

Looking, therefore, at the respective capabilities of the BESSEMER and the HEATON methods to make steel of the great bulk of our iron ores, we cannot but think that the latter seems the most likely to possess the qualities which, perfected, will bring about the desired result. The purely chemical arrangement, although at present limited in its development, we believe to be scientifically much in the van. For any chemical combination, so wide in its capability of application as to produce such results on inferior irons—irons that cannot be used in the BESSEMER process—necessarily give the resulting methods of manufacture that position.

The great defect in the manipulation of the soda process, charged against it by its adverse critics is, that it cannot be regulated when once the converter has been set on. Neither Mr. HEATON, however, nor Mr. HARGREAVES, regard this as a difficulty of practical moment, for the quantity of carbon usually found in specific brands of pig-iron being ascertained, the nitrate is used in proportion.

The specimens shown by the Langley Mills Company at Middlesborough, all made by Mr. HEATON'S process, from Middlesborough iron, must have convinced the most sceptical that "the great metallurgical problem of our time" is on the eve of being solved; and our visit to Langley Mill has confirmed our own expectation. There the company with whom Mr. HEATON is associated have expended a large amount of capital in the laying out, under Mr. HEATON'S supervision, much of upwards of four acres of ground, with all the appliances necessary to the carrying out of his method upon a scale which will enable them to manipulate, by rolling and forging, some 600 tons of steel and steel-iron a week. They can convert that quantity with their present machinery, but they cannot complete much over 60 tons. Their preparations embrace two departments—the one the reverberatory, and the other the casting; the latter will embrace more than 40 crucible furnaces. The conversion of the pig-iron into refined metal occupies from three to seven minutes only, and instead of the lapse of nearly five weeks being necessary to produce crucible steel it can be made in a few hours. A forging of crucible steel, which was in the state of pig-iron at 11 o'clock in the forenoon, was, a few days ago, carried away by a party of visitors who left Langley Mill at 4 o'clock in the afternoon. Rolled steel could be produced in even a shorter time, for the puddler is altogether dispensed with, and the ball furnace alone used for purifying the metal of the sodium left in it after the converter has done its work.

Mr. HEATON frankly confessed to us that his method has not yet been got to that perfection which will enable him to cast ingots direct from the converter, but in dispensing with the puddler he has conferred an enormous boon upon the iron trade. The conclusion at which, by our visit, we have arrived is, that though not perfect, yet the system is capable of wide adaptation; and we hope that the inventor's terms for its use will encourage experiments with it by the makers of the poorer pigs, who we know are waiting eagerly for an opportunity to turn their property to an account, of which they believe Mr. HEATON has shown it to be capable.

SCOTCH STRIKES, AND LOCK-OUTS.

Among miners no doctrine has so ineradicably woven itself into the texture of their natures as that any reduction of wages is an act of tyranny on the part of the masters, which ought to be vehemently opposed. With men whose minds are so foreclosed to all reason reasoning is not only quite useless—"water spilt upon the ground"—but, as a rule, it is regarded by them as an indication of weakness on the part of the masters, which ought to be repudiated. Their true safety depends on a strike that will press their employers into a willing acquiescence. It is of no avail that employers urge that the price of their minerals is falling in the markets of the world, and that a necessity is laid upon them to reduce the labourers' hire, which they would much rather not do. In the meantime there has been agitation carried round the whole district, and those who would have willingly taken the employers at their word are sucked into the whirl of the fatal maelstrom; and after a mass meeting, at which the most exciting and incongruous language is used, a strike is proclaimed over the district, to break up the masters' "conspiracy" against the rights of their noble, but ill-used, workmen.

In 1837 the colliers of Lanarkshire opposed a reduction of their wages from 35s. to 30s. a week by a strike, which was continued with great virulence over a period of six months. Upwards of 2000 workers were set idle, and if we add the other labourers that number would not fail to be doubled. What was the result? It was estimated that the loss to the manufacturing and industrial interests in Glasgow and neighbourhood reached nearly half a million sterling; the colliers lost 78,000l. in wages, and their labourers 111,000l., besides the beggary and turbulence, and idle habits which arose out of the stupid and lawless course they had pursued; and it ended by their resuming work on the terms they had six months previously rejected. This is a lesson from the past—are our miners of the present day more considerate? Have the lessons of the past rendered them more teachable, less violent, more charitable in their opinions towards their employers? Alas! no. There are, unfortunately, no accredited statistics to which we can turn that will give us an accurate account of the 30 years which extend from 1837 till now, but the loss to all concerned cannot be less than several millions sterling! And that is only the money part of the question. What of the starvation, and dissipation, and demoralisation the miners, as a class, have had to endure—all self-inflicted; and what misery and degradation have been the lot of their families, which might have been greatly mitigated, if not wholly overcome, by persevering and honest industry. On the other hand, with the general public the frequent recurrence of strikes

and lock-outs in the mining trade is being regarded as if these contests were provoked by the mine owners themselves, and the nature of the miners' employment greatly aids their cause; but this is wholly suppositious, as a little consideration will show.

There are three primal elements that constitute the market price of every article of commerce—First, the cost of the raw material; second, the cost of production; and, third, the cost of transit to the market. With regard to the first of these, "the cost of the raw material," as a rule, the manufacturer goes to a market which fluctuates from day to day, and either purchases for immediate wants or lays in a stock, as he sees fit. But the mine owner cannot do that. He purchases his raw material for a long period of years in advance—not unfrequently for a term of 25 years, and at a fixed rate; so that the first of the three elements which go to constitute the price remains, in all states of the market, unalterably fixed. Passing over the second, which will be noticed immediately, let us look at the third—"the cost of transit to market." Generally, traders and manufacturers have the option of competing routes for sending their goods to the market, and they can either select the cheapest, or enter into special contract by which their produce may be carried on advantageous terms. The mine owner is not so situated; his works must be planted where the minerals exist, and rarely has he more than a single route to market; and, whether that route be a canal or a railway, the directors fix the rate, and it remains the same in all states of the market. As two of the primal elements which go to constitute price are unalterably fixed, so far as mine owners are concerned, the third is the only one which can be varied, and still these variations need neither be so numerous nor so sudden. To bring about a state of harmony between masters and workmen we suggest that a scale of rates per ton should be paid for the various kinds of mineral in relation to their value at the pit mouth, and the difficulty of working them. This is the basis on which wages are at present founded, and if such a scale were mutually agreed on both parties would know how wages would rate, and the reduction or advance would be submitted to or given in conformity with that scale, without the necessity of any contest. In some districts of Scotland a graduated scale of wages was adopted last year, but it was for seasons of the year, and not for mineral value, and thus being founded on incorrect principles it was discovered to be unworkable, and was withdrawn after a few weeks' trial. We give these hints in the hope that some plan will be devised that will stand the test of trial, and bring about that harmony between capital and labour on which alone prosperity depends.

THE PRINCE OF WALES SLATE COMPANY (LIMITED).

We informed our readers a few weeks since that arrangements were in progress for re-establishing this company on a sound and satisfactory basis. We are now enabled to give some further information of a reliable character in confirmation of that statement. A new company is proposed to be registered, for the purpose of purchasing the entire property for 4500 paid-up shares of 5*l*. each, the nominal capital of the new company being 50,000*l*.; there will thus remain for working capital and contingencies 27,500*l*., which appears to be an ample reserve for all purposes. A large and most influential meeting of shareholders was held on April 30 at the offices of Messrs. SMART and SNELL, in Cheapside, when a resolution was carried with only one dissentient, authorising the liquidators to enter into the foregoing arrangement. We congratulate the shareholders in this company on the success which has attended their efforts, and venture to express our belief in the hopefulness of their renewed operations. It is generally admitted that the property in question is of great and undoubted value, and it would have been lamentable if any merely financial difficulty should have interposed an obstacle to its complete and profitable development. The plan proposed, and the statement appended to the prospectus, appear unexceptionable. A strong recommendation to new, as well as to the old shareholders, and an unusual guarantee for the *bona fides* of the scheme, will be found in the fact that the directors of the new company, among whom are some of great practical experience, together with the general manager, held, between them, upwards of 4000 shares in the old company, or nearly one-half of the issued shares. We have carefully perused the prospectus and proposal, but we believe it is only intended for circulation among the parties at present interested. We are informed that several hundred shares have been applied for by the old shareholders.

OUTBURSTS OF GAS, &c., IN COAL MINES.

THE VALUE OF AN EFFICIENT SAFETY-LAMP.

The absolute reliance that may be placed upon the Stephenson safety-lamp was pointed out in last week's Journal—the mere circumstance of so large a colliery as the Stafford Main, where 300 men and boys are employed, becoming filled with an atmosphere so explosive that a single defective lamp would have led to the firing of the pit, affording conclusive evidence that, for all practical purposes, the Stephenson is perfect. Owing to the generally fiery nature of the South Yorkshire collieries, the relative value of the various descriptions of safety-lamps are, perhaps, more severely tested there than in any other district, and the general opinion entertained amongst those to whom the management of the pits is entrusted is that one important condition or requirement is the quality of self-extinguishing when exposed to fire-damp. But, notwithstanding the confidence which the invariable safety of the Stephenson lamp, judged of by the test of practical experience, had secured for it in Yorkshire, the announcement of experiments on safety-lamps to be conducted by the Lamp Committee of the North of England Mining Institute led inventors to the conclusion that something superior to any existing lamp was imperatively required.

Actuated by these considerations, Mr. D. P. MORISON, of Pelton Colliery, Chester-le-Street, devoted his attention to the production of a more perfect lamp, and succeeded in submitting lamps which underwent the experimental tests in the most creditable manner. Of these lamps one was a carefully-constructed lamp on the GLOVER and CAIL principle, and the other a modification of that of Messrs. UPTON and ROBERTS. Describing his lamps, in the *Mining Journal* of Nov. 23, Mr. MORISON writes—

"I have taken as the basis of my improvements the lamps already known as UPTON and ROBERTS' and CAIL and GLOVER'S; but what I claim is that both of these lamps in their original form exploded when subjected to a current of explosive mixture—in the case of the former of 11 feet per second, and in the latter of 8 ft. per second (the same as that at which the Davy, Mueseler, Clanny, and other similar lamps explode)—my modifications of these lamps will stand any current, even up to 35 feet per second, without any danger of passing the flame. In the No. 1 lamp the patented improvements consist of an exterior protecting shield, a better and more simple arrangement, at the ingress of the air one or more discs of wire gauze inserted in the hollow top, and a greater length of the cylinder of the lamp. In No. 2, of a chimney composed of two converging cone-shaped funnels of sheet-iron, brass, or other substance, and of an arrangement of washers on the wire gauze or perforated metal discs at the top and bottom of the glass cylinders."

It appears that since that time some further improvements in the No. 2 lamp have been introduced, and Messrs. DEACON and MORISON, the patentees' agents, have just forwarded to the *Mining Journal* office one of the lamps embodying the latest improvement. They claim that with it the necessity for an efficient lamp, referred to as pointed out by Mr. P. COOPER last week, has now been thoroughly met, as the new lamp combines the advantages of perfect safety (it has been tested in an explosive mixture with a velocity of 35 ft. per second); of excellent light and steady burning; that, the glass being double, it is not in the least liable to break from over-heating, owing to the current of fresh air passing between; of not being extinguished by currents of air of the highest velocity (it has resisted 70 ft. per second); of susceptibility to fire-damp, which, in the smallest of quantities, is shown in the flame; and of being at once extinguished as soon as the proportion of gas reaches explosibility. They regard the last-named property as, perhaps, the most important, especially in conjunction with the fact that it will resist an explosive mixture, though moving at such high velocities as 30 and 35 ft. per second, the highest velocities attainable in the experimenting box at Hetton. Referring to the notice of last week, they remark that in sudden discharges of gas, such as that referred to by Mr. COOPER, the proportion of gas to air would be too great to be explosive, so that however fast it might be travelling it would merely put the flames of the lamps out; the danger is, however, when with mechanical ventilation the quantity

and velocity of the fresh air is greater, that an explosive mixture is more readily produced by sudden discharges, and, impelled by the current, more certain of firing the lamps—in such an instance the Stephenson, which fires at 9 ft. per second, would not be reliable at all.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

MR. THOMAS PRIDEAUX, Sheffield, has recently specified an invention for smelting and treating iron, and blast-furnaces or cupolas employed for such purposes. It appears from the specification the invention relates to a new method of smelting iron from the ironstone, whereby the patentee proposes to entirely dispense with the water tuyeres which are at present used. A passage or pipe is constructed and disposed round the furnace, between the inner and outer brick-work, under the boshes or boshing. Above the level of the dam from this passage are a number of perforations, which open into the interior of the furnace. The blast is let into the passage and through the perforations, and it thereby spreads over the whole surface of the furnace. By this arrangement the patentee believes that great advantage is derived, as the passage around the furnace acts as a heating surface, and thereby a great degree of heat is attained before the air or blast passes through the perforations into the interior of the furnace. To dry or calcine the ironstone before it is introduced into the furnace, vertical gratings are constructed at the top of the furnace, having valves at the dip. The ironstone is "tipped" or thrown on to the gratings. The gases or gaseous products and heat from the furnace ascend through the grating, and thereby dries or calcines the ironstone as may be found necessary. The valves at the dip of the grating are constructed in such manner as to permit of the discharging of the stone from the grating into the interior of the furnace.

MR. GEORGE HASELTINE, of Southampton-buildings, has specified a patent relating to the manufacture of iron and steel. This invention has been communicated to him from abroad by Alexander L. HOLLEY, New York, United States. The chief object of this invention is stated to be the peculiar means employed for casting two or more ingots in ordinary separate ingot-moulds at one pouring or teeming. For this purpose it is preferred to place a group of ingot-moulds, made of cast-iron or other material, around a central ingot-mould, somewhat higher than the others. If they are compound moulds it is best to hold them together by one or more common bands passing around the group, and tightened by wedges. All these moulds are set upon a box or flask filled with moulding sand or other moulding material, in which are moulded sprues or runners, connecting the lower end of the central mould with the lower ends of the surrounding moulds.

MR. GEORGE WILKINSON, of St. Leonard's-road, Bromley, has specified an invention relating to pumps. In his specification he states that the suction-pipe of the pump is arranged to rise up at the side of the pump cylinder in a chamber provided for it. The cylinder communicates at its lower end with this chamber. The cylinder also contains a valve piston, or bucket, to which a short and rapid stroke is given, usually by a crank and multiplying gearing. The suction-valve is mounted at the top of the suction-pipe at a level above the piston or bucket, so that the piston or sucker is necessarily and at all times submerged in the water. The water is delivered through the piston or bucket, and passes the check or valve therein, and it escapes by a spout or delivery pipe at the upper end of the cylinder, above the piston or bucket.

Among recent applications for patents are the following:—W. WRIGHT, Mostyn, manufacture of iron and steel. J. CASSELL, Limehouse, sheathing iron ships. A. MUNRO, Arbroath, machinery, tools, and tool-holders for cutting stone, slate, marble, &c. W. EVERITT, Birmingham, manufacture of copper, brass, and metal tubes.

The following notices to proceed with applications for patent have been lodged:—Dr. ALLSHORN, Ludgate-hill, artificial fuel; ROWAN, Glasgow, moulds, or apparatus for casting steel; CLARKE, Redditch, wrappers for needles; LEWIS, warming and ventilating; GLOVER, Pimlico, lamps for burning benzole, naphtha, &c.; MENOUS (communication from Macomber, Paris), combining hydro-carbon vapours with oxygen and hydrogen, and burning mixtures as fuel; FRASER, Commercial-road, furnaces or fire-places; AVERY, Redditch, needle-cases; PITTAR, Gresham-street, mineral and rock-drilling apparatus; TILDESLEY, Willenhall, furnaces, fire-places, and stoves; ADAMES, Birmingham, metal buckets, pails, or tubs; JONES, Blairston Ironworks, air-exhausting machines for ventilating mines, and other similar purposes; and also for apparatus for hauling minerals in mines, and raising water from mines and other places; DITMARS, Pancras-lane, smoke-consuming apparatus (communication from Wilhelm and Van der Made, of Dordrecht); SIEMENS, applying gas-furnaces to evaporating smelting, puddling, and other purposes.

ROYAL CORNWALL POLYTECHNIC SOCIETY.—The prize list for the current year has just been issued, and from the large number of recompenses offered there are good grounds for anticipating that the number and importance of exhibits will be this year far above the average. In judging of the inducements to exhibit, the exhibitor is usually guided by the value of the prizes offered, and in estimating this value the intrinsic worth of the prize is far less considered than the amount of prestige attaching to the gaining of it. Now, in all matters connected with the county of Cornwall—its industries, its antiquities, its fine arts—the winning of a Cornwall Polytechnic prize or premium is generally accepted as an undoubted evidence of merit, and from the large number of subjects for which rewards are offered there are but few classes excluded from its beneficial operation. Natural Philosophy, Chemical Analysis, Mechanical and other Scientific Inventions and Improvements, Models of Machinery not displaying invention, Naval Architecture, the various branches of the Fine Arts, Natural History, Statistics, Essays, Scientific Papers, &c., are equally cared for; whilst owing to the high social position and extensive practical knowledge of the gentleman to whom the distribution of the prizes and premiums will be entrusted, a substantial guarantee is afforded both that the awards will be fairly and impartially made, and that the judges are fully competent to decide upon the relative merits of every exhibit submitted to them.

THE IRONWORKERS' STRIKE.—It has come about just as we expected it would; the puddlers in South Staffordshire, who have no money in their own funds, have been kept out by promises of help made to them by interested Unionist leaders, who profess to know most of the minds of the North of England men. Sums per week as large as 13*s*. or 14*s*. have been spoken of, and men have believed it would come, notwithstanding that the division has been postponed from time to time. It was to have come a fortnight ago, but it did not; it was then to have come last Saturday, but it did not; it was sure to come last Wednesday, but it did not. On that day we saw that men assembled at central spots in different parts of South Staffordshire, eagerly expecting to receive the long-deferred aid, but they had to be content with the most flimsy excuses. Hope deferred is making their hearts sick, so they are gradually dropping in at most of the works, and the leading works in the centre of the Black Country is wholly on in all of its departments at the full drop.

SALE OF MINERAL PROPERTY IN SOUTH WALES.—Messrs. Fuller, Horsey, Son, and Co. submitted for sale at the Auction Mart, Tokenhouse-yard, on Thursday, by order of the Master of the Rolls, the freehold mineral property known as the Blairston Ironworks, together with the Blairston Inn, Blairston House and grounds; three houses, for manager, surgeon, and cashier; 97 houses for workmen; shops and schools at Blairston; a station on the Western Valleys line of the Monmouthshire Railway, about 10 miles from the shipping port of Newport, and in direct communication therewith; the total area being 94 acres, with 11 seams of coal of the aggregate thickness of 41 feet, and seven courses of rich ironstone. There was also included in the sale a leasehold interest in two mineral properties adjoining, having an area of 47 acres; the whole being situated in the parish of Aberystwith, Monmouthshire, and immediately adjoins the estates of Messrs. J. and C. Bailey and the Blairston Company, and the coal and ironstone have been worked for many years past. The ironworks comprise two blast-furnaces, steam-engine, boiler, and every necessary for full working. A large amount has recently been expended on the machinery of the saw-mill, and in erecting coke-ovens, &c. The auctioneer said that Mr. Hedley, the eminent mining engineer, in December, 1865, reported "that there are sufficient unworked minerals to secure the minimum royalties in perpetuity, and that the existing shafts are sufficient for working out the whole of the minerals." This being so, and the quality of the minerals having been thoroughly ascertained and approved, this property may be recommended as a sound

one for the investment of capital. The property being offered for sale by order of the Court of Chancery, a reserve price was placed in his hand, subject to which it would be sold. No bid being made, the property was withdrawn.

REPORT FROM NORTHUMBERLAND AND DURHAM.

MAY 7.—The Coal and Coke Trades are improving a little, although they are far from brisk as yet. Considerable shipments have been made of all descriptions of coal lately at the principal ports, and the colliers have been better employed. Tenders are required for the sinking of a new shaft at Tanfield Lea Colliery, near Gateshead. It appears that a new shaft, 8 feet in diameter, is to be sunk from the surface to the well-known Busty seam, a coking coal of excellent quality. The Iron Trade continues to improve slowly, the demand for ship-plates being good. The prices of pig-iron remain as before—No. 1, 47*s*.; No. 3, 43*s*.; and No. 4, 42*s*., nett cash f.o.b. at Middlesbrough. There was a large attendance at Middlesbrough market on Tuesday. Specimens of iron ore from the mines of Algeria, called De Mokta El Hadid, were exhibited by Mr. Fallows. It is stated that this iron ore contains from 65 to 70 per cent. of iron, and can be sold at 10 frs. per ton. Foundries are reported to be better off for orders. Coal and coke are unaltered. Shipments to the Continent have fallen off, but there is a fair amount of business with Scotland and Wales.

At the Northumberland and Durham Miners' Permanent Relief Fund annual meeting, held at Durham, on Saturday, Mr. John Burdett, of Jarrow, was appointed chairman. Mr. Alex. Blyth (the secretary) read the report and financial statement of the fund.—The number of members has now reached 11,000, being a large increase over the number on the books last year. The Society is likewise increasing in favour and influence with the coal owners and the public generally. A large proportion of the coal owners in the district are showing their high appreciation of the society by contributing the 20 per cent. on their workmen's contributions, and are giving it further support by allowing the monies to be collected at the pay offices. The Northern Coal Trade have certainly set an example in this respect worthy of imitation, inasmuch as no other portion of the commercial community have made such sacrifices to help the unfortunate among their employees; and the committee would urge upon the delegates present the necessity of doing all in their power to extend the society till every miner in the district has become a member of the society, and thus taken hold of the hand held out to help him. The number of fatal accidents during the year has been 25, being about 24 per thousand on the number of members in the society. Of these 17 have left widows with 32 children, one was a widower, four single members, and three half members, making a total of 84 widows, 139 children, and 40 disabled members now being supported from the funds of the society. The income of the society during the year has been 4066*l*. 9*s*. 4*d*.; the expenditure has been 3027*l*. 6*s*. 10*d*., being a saving in the year's accounts of 1039*l*. 2*s*. 5*d*., and augments the reserve fund to 4623*l*. 4*s*. 3*d*., together with 4309*l*. from the Hartley Surplus Committee, making the total reserve fund to be 8923*l*. 4*s*. 3*d*.. The arrangement for the "H. Taylor Testimonial" is in course of completion, and in due time will be brought to a successful termination. A proposition from Monkwearmouth Colliery, suggesting the propriety of establishing a superannuation fund for members on attaining the age of 65 years, was rejected as impracticable, after a long discussion. It was agreed to increase the salary of the secretary (Mr. A. Blyth) from 25*s*. to 30*s*. per week. The miners and their friends, to the number of 100, afterwards sat down to dinner in the Town Hall. The meeting was afterwards addressed by Mr. H. Taylor, Newcastle; Mr. H. Smart, Cramlington Hall; the Mayor of Durham (Mr. Robert Robson); Mr. Howie, Mr. Haswell, Cramlington; the Rev. G. F. Fox, Durham; the Rev. J. P. Hick, Byers Green; the speeches delivered generally being of a congratulatory character, and recounting the success of the fund in several parts of Durham.

PRESENTATION TO A COLLIERY MANAGER.—A deputation from the agents and workmen of Cramlington Colliery, consisting of Messrs. W. Hobbins and W. Telford, waited on Mr. EDWARD POTTER at his residence, Marine House, Tynemouth, and presented to him a magnificent timepiece, from the establishment of Messrs. Reid and Sons, bearing the following inscription:—Presented to Edward Potter, Esq., on his retirement from the management of Cramlington Colliery, as a token of the respect and esteem in which he has been held for a long series of years by the agents and workmen. May 1st, 1868." At the same time a handsome and valuable silver cake-basket was presented to Mrs. Potter, bearing a suitable inscription.—*Newcastle Daily Chronicle*.

REPORT FROM THE FOREST OF DEAN.

MAY 6.—It is a great relief to report that the tendency in the Coal Trade is decidedly towards improvement, which we trust will continue to the end of the summer, when things may again be expected to return to their usual activity. It is wonderful, indeed, how houses spring up in and about Cinderford: progress in the building trade is every day becoming more manifest, and if the mineral resources of the district were fully developed by enterprising capitalists, no doubt the place would have its share of prosperity, and the increase of population continue.

The Hon. James K. Howard, Crown Gaveler of the Forest, has just intimated that it is his intention to grant a license to Thos. Constant, of Noxon Farm, as the owner of the Dark Hill Endeavour Colliery, to get certain barriers of coal lying between this and other collieries, and calls on all those who may consider themselves affected thereby to give notice of objection on or before the 20th day of May next.

The Great Western Deep Coal Company (Limited) has given notice that an extraordinary general meeting of shareholders will be held at the Red Lion Hotel, Pontefract, on May 28, that the final accounts of the liquidators may be laid before them, in accordance with the Companies Act, 1862, cap. 89, sec. 142. This company seems now to have determined to erect pumping machinery, and we see they have advertised for tenders for the erection of an engine-house, boiler seats, and chimney.

For some time past works have been in course of erection near White Croft, for the purpose of manufacturing fuel from small coal. We hear that the proprietors of these works have taken up the patent process known as Barker's Patent, which proposes to make fuel from small coal, mixed with muelage made from farina, and obtained from potatoes; carbolic acid is also used in the manufacture, and it is said that the quantity of potatoes required to produce farina for a single factory of importance is very large indeed. One thing is in its favour as regards the Forest district, and that is the improbability that many such factories will be brought into existence; indeed, it is generally understood that the proprietors of the works in question have monopolised the exclusive right of using Barker's patent process in this district. Whatever good may result to them (and we trust it will not be small) time must determine, but the farina process is not thought to be of vast importance by many persons in this district. We hear on good authority that a party of mining men here have been experimenting for some months past on certain inexpensive compositions likely to form with coal a first-class fuel, and we further hear that their success has far exceeded their expectations in the results obtained, and they intend forthwith to secure their invention by patent.

REPORT FROM SCOTLAND.

MAY 6.—We have had a sluggish market all the week in Pig-Iron, and prices have scarcely been moved. The shipments are also short, being only 11,355 tons for the week just closed, against 13,125 tons in the corresponding week last year. This makes the total shipments to date amount to 179,610 tons, while at the same period last year they reached 216,660 tons, being a deficiency of 37,050 tons on this year. On the 30th ult. there were in Connal and Co.'s stores 232,681 tons, last year the quantity was 267,744 tons. At Middlesbrough there are in store 70,947 tons, last year there were 68,000 tons. The market opened after May-day with little doing, buyers offering 1*d*. a ton less money; yesterday only 500 tons reported at 52*s*. 6*d*. a month, and to-day matters were a little worse, holders having sold about 15,000 tons in warrants at 52*s*. 3*d*. down to 52*s*. 1*d*. cash; 52*s*. 4*d*. and 52*s*. 3*d*. a month; closing sellers, 52*s*. 1*d*.; buyers, 52*s*. cash. No. 1, g.m.b., 52*s*. 9*d*.; No. 3, 50*s*. 9*d*.; Coltness, 57*s*.; Gartsherrie, 56*s*.; Langloan, 54*s*. 6*d*.; Eglinton brands, 52*s*. The monthly average prices of pig-iron for the months of this year as compared with those of last year are—

In Manufactured Iron there is a prevailing dullness, with easier prices, stimulated by the keen competition of Staffordshire and Wales for any shipping lots offering. There is now a less tendency to conceal the fact that lower prices are being taken for nearly all kinds of finished iron, although quotations are nominally the same. Angle and plate iron is now outrunning consumption, and makers of these descriptions are able to take up specifications of merchant iron in the interim between deliveries.

In the Coal Trade there is a tendency to lower prices than those we last quoted, even though these scarcely covered lordship and cutting. A writer in a local contemporary asserts that if something does not come speedily to relieve the coalmasters a number must shortly take refuge in bankruptcy. Most of our coalowners are wealthy men,

and would willingly spend a portion of that wealth in saving their workmen from enduring the evils of starvation; but, while doing this, it is hard to be repaid by vituperation similar to that spoken by Delegate Smith, at the Motherwell Conference, a few days ago. He said—

"No doubt, when the miners were in Union, through its persuasive influence coalmasters would be heard talking glibly of the benefits of short time and union; but since we gave up Union our experience of the last six months plainly proves that their old nature of avaricious cupidity and unscrupulous greed has returned with increased intensity. In several districts great numbers of men have been victimised and hunted with bloodhound-like pertinacity for daring to practise short time, or murmur against the manner in which we were now being treated."

Smith is a leading delegate, and a great man among our colliers, and this is the kind of seed he sows. If the "blind lead the blind" they must inevitably fall into the ditch together. The shipments of coal during the week past were 41,645 tons, against 39,400 tons same week last year, but the surplus was principally coastwise from Troon and Ayr, the northern ports being the chief foreign purchasers. Last week the minerals (650 acres) belonging to Spittal's Hospital, Stirling, were disposed of to our townsman, Mr. Adie; and the going colliery, with the tenant's right to the lease of the coal in the lands of Druncrosshall and Byres, Bathgate, sold, after a keen competition, for 1575*l.*, being 575*l.* above the upset price.

The Shipbuilding Trade continues active, the aggregate launches during the past month consisting of 15 vessels, all classes, of 5875 tons.

FIRING A LARGE CHARGE OF GUNPOWDER.—On Saturday last a blast was successfully fired at Furnace Granite Quarries, on Lochfyneside, a few miles from Inverary, on the principle of mining and rock-blasting introduced by Mr. William Sim in 1853. The mines and headings on this occasion were driven in a horizontal direction from the face of the quarry, commencing at a point about 40 ft. above the level of the quarry floor, and 80 ft. from the top. The first heading was driven inwards 46 ft., and a cross mine taken off from it to a distance of 41 ft., at the inner end of which a chamber was formed to receive 3 tons of gunpowder. The powder having been carefully deposited, the chamber and mines were hermetically sealed by means of stone rubble set in Roman cement, the wooden easement to protect the wires and fuse being carried through the building in its full line of length. The gunpowder having been ignited by means of a submarine fuse exploded without any sharp report, concussion, or stones flying, as is usual in the case of ordinary or small blasts, and displacing a mass of rock, computed at 30,000 tons.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MAY 7.—Any improvement in the demand for Iron is of slight amount, and is only partially felt, for many makers complain of a great want of orders, in spite of the fact that so many works are now standing, owing to the failure of their proprietors. More puddlers have gone in since last week, and most of the principal works are now, at any rate, in partial operation. So far it appears that the men have not received any distribution of pay from the Union funds. The causes assigned for the delay are, first, a desire to see how much can be paid continuously; and, next, that a certain notice is necessary in order to withdraw funds from the bank. If it is in the Post-Office Savings' Bank, three days would suffice; in any ordinary bank money deposits would be paid on demand, unless there is some special arrangement for notice. The men still meet, and resolve not to yield, but if they continue to go in by dribbles the strike must soon be over. A reduction of 10 per cent. is being made in the prices paid for making nails in several of the districts devoted to that manufacture, and it is said that a large reduction in the wages of the miners in the thick coal collieries is contemplated. The wages of the thin coal colliers were reduced about a month ago, but no such step has yet been taken in the Dudley district, where the 10-yard coal is got. Several years ago a reduction of wages amongst this class of men led to a most protracted strike, but the men had to yield. Another large body of miners left South Staffordshire on Monday, their destination being Lancashire. They state that so scarce has work been for some time in the district they are leaving that they have scarcely been able to subsist.

The proposal of Mr. Wyndham for fixing the basis of the assessment of mines by statute is one of considerable importance. Unfortunately, progress with any such measures is very difficult. That the whole question of assessing mines, railways, and various kinds of property is in a state of chaos, involving great injustice, and a vast legal expenditure, there can be no doubt; but the House of Commons seems to be getting more and more incapable of settling anything. It refuses to let a small body decide on matters which can never be properly dealt with by a large assembly: it is choked with work, and the labour of carrying through the smallest practical reform is almost Herculean. The arrears into which practical legislation has fallen is proved by the circumstance which appears in this case, that no sooner is a limited proposal made than it at once appears that, instead of a partial amendment, a complete change is needed; the smaller reform is put aside that the larger may be effected, and this cannot be done, so delay follows delay, until patience is exhausted and effort abandoned. Unless the House of Commons can learn to delegate matters of detail, and content itself with affirming general principles of broad lines of policy, we are threatened with a dead-lock in national affairs. The whole system of levying local rates calls for revision, and it should be complete, and the result permanent. Every alteration of the incidence of taxation, local or imperial, inflicts much individual injustice in cases where expenditure has been incurred and arrangements made on the basis of the existing amount of liability to local taxation. As an instance of the absence of any principle in assessment, take the long disputes about railways. What can be more anomalous than to take the profits as a basis? Suppose the consulting-room of a great physician, the chambers of a successful barrister, or the premises of a banking company, were assessed on the basis of the profits realised? And why not as much as the earnings of a railway? But when different parishes have to form separate and independent estimates of the value of sections of a line, the anomaly becomes still more glaring, and the region of speculation over which fluent tongues may expatiate becomes boundless. It would surely be possible to fix on some just and plain principle by which the assessable value of mines and railways could be decided, if half-a-dozen persons of experience and shrewdness were to set themselves to the task. The cost of litigation appeals against assessments in this county has been lately enormous, and none can say that anything is established as a basis for the future.

On Friday a man, named John Price, was killed at the Speedwell Colliery, Longton, belonging to Messrs. Bridgwood, in a manner which shows how little precaution is usually taken against accidents in mines. He and another man went down the shaft in the winding takers to the level of a seam called the Moss Coal. The deceased got out, and stood on the landing, and whilst the other went to a bob to fetch a candle the poor fellow fell down the shaft, a depth of 80 yards, and was killed. The scaffold on which he stood was 3 ft. 6 in. wide, the shaft was 9 ft. wide, so that there was a large space uncovered, and there was no fence of any kind, so that the deceased in the dark fell over the edge from some cause or other. Several witnesses at the inquest said they never knew of a fence being put up under such circumstances, but Mr. Wynne, the Inspector, thought such a precaution very necessary, and people who imagine themselves standing in the dark on a narrow platform, a slip or step from which would be fatal, will, probably, share the Inspector's view.

At the Bilston Petty Sessions, on Tuesday, James Mason, an engine-man at Messrs. Sparrow's colliery, who had drawn a man over the pulley, causing him serious injury, was fined 4*os.*, and costs.

At the meeting of the Institution of Mechanical Engineers, at Birmingham, Mr. John Robinson, of Rochdale, read a paper, giving a description of a dove-tailing machine, invented by Mr. T. S. Armstrong, of New York, which was shown at work at the recent Paris Exhibition; and it is constructed so as to cut out the dove-tail joints in woodwork by means of the continuous action of compound circular saws of peculiar form, which finish the joints completely without the use of any chisels or cutters. The same machine cuts both the pins and the holes of the dove-tails in succession, by a simple change of adjustment, so that their pitch and dimensions correspond exactly, and make a correct joint in every case. Such a machine is a perfect triumph of ingenuity.

Another paper was "On an Improved Cupola for Iron Foundries," by Mr. J. Eichhorn, of London. In this cupola, which is the invention of Mr. Henry Kriger, of Hanover, the objects aimed at are to concentrate the heat in the lower part of the furnace, and render the action uniform throughout the operation of melting, and to prevent the blast from injuring the heated metal by oxidising it. The vertical shaft of the cupola, which is made rectangular in form, opens into a lower chamber, the bottom of which forms the hearth to receive the melted metal. Round the bottom of the shaft runs an air-passage, into which the blast is delivered from the air-main; and the blast entering through this passage cools the brickwork of the cupola, and becomes heated itself; it then passes down into the melting chamber of the cupola, through two long slots in the roof, one at the front and the other at the back, extending the whole breadth of the hearth. The metal obtained in this cupola is found to be very fluid, more so than in an ordinary cupola, while retaining its softness; and the consumption of coke is from 1½ to 1¾ cwt. per ton of iron melted, according to the magnitude of the charge, the loss of metal in melting being only from 2¼ to 3 per cent.

2½ per cent. The annual meeting of the Institution in the ensuing summer is to be held at Leeds, on July 28 and following days, during the time of the Art Exhibition in Leeds.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

MAY 7.—Business remains without much alteration in the North Derbyshire district, the demand for merchant iron generally being far from active. Most of the ironworks are kept moderately going, but a considerable proportion of what is made has to go into stock. At Staveley there appears to be more doing than in almost any other part of the district. Most of the furnaces continue in blast; those belonging to the Oakesthorpe Company, however, are still quiet, without any signs of being lighted. This is the more to be regretted, as the works are in a very good situation, and quite close to the railway station. There is no material improvement in the demand for house and other qualities of coal, and, as a rule, short time is the order at most of the collieries. The tonnage being forwarded to London still continues low, more particularly from Clay Cross, from which in the April of last year close upon 1000 tons a day were sent. To the Midland Counties the business doing is only of a moderate character, and it is not likely to improve much for some time to come. From the Burton-on-Trent district the men are quietly settling down, and although the trade is far from what may be termed active, still the pits are kept tolerably well going, considering the long time many of them were kept nearly idle, and the lost custom is gradually being recovered. Still, notwithstanding the quietness which has characterised the coal trade, several pits are being opened out, one large field of some hundreds of acres in particular in the neighbourhood of the Doe Hill Station, which gives promise of turning out successful.

There is very little alteration in the business doing in Sheffield and the district around it. Some of the large ironworks manage to keep their men tolerably well employed, but as a rule most branches of the iron trade are very quiet indeed. At Milton and Elsecare, however, there appears to be no falling off whatever, almost every department, including the rail and plate mills, being busy. In Coal there has been a little more doing during the week for Lancashire, owing to the dispute there; but as the men have now resumed work, but few orders may be expected there, further than from those places which have generally been supplied from South Yorkshire. To London there is no improvement in the tonnage being forwarded from the district, and it is not at all unlikely that, as the season advances, there will be a still greater decrease. This, to some extent, is attributed to the high charges for railway carriage, which by the Great Northern is said to be about 9*s.* 3*d.* per ton in company's wagons, and about 2*s.* per ton more than similar coal is taken from Derbyshire. The efforts of coalmasters to obtain a reduction of the rate has so far been unsuccessful, as the company have given no intimation that they are prepared to accede to the memorial presented to the directors about a month ago. The effect will be that the company will be considerable losers by the loss of traffic in minerals from South Yorkshire, and it is very questionable whether its receipts from that source in the present year will come up to those of 1867. Those facts, one would have thought, would have induced an enquiry as to the cause of the falling off, but such appears not to have been the case. In steam coal there is a moderate business being done to Grimsby, and which naturally is expected to be done in the course of a month or two. To Hull, however, there is very little doing, so that the trade by water is very quiet, and freights rather lower.

There has been a good deal of excitement in the Barnsley district during the early part of the week, owing to the recovery of four bodies from the Oaks Colliery on Saturday last, and their burial on Monday and Tuesday. They were found rather unexpectedly in the back travelling road, with their heads down hill, as if they had been blown backwards by the force of the cold-blast succeeding the explosion. It is not expected that many more bodies will be got for some time, as there is a vast deal to be done in clearing the workings. It is said that the water for about 150 yards above the north and south dip levels extends to the dip headings, so that the north and south dip levels will be roofed. Sinking operations are being proceeded with at the new pit at Ardsley, the water having been got out, so that everything in that direction is proceeding satisfactorily.

OPENING OF THE KILLMARSH BRANCH OF THE MIDLAND RAILWAY.—This branch line, which was sanctioned two years ago by Parliament, has been opened for traffic. It commences about a mile and a half north of the Ekeington Station, and is made for the purpose of connecting the Norwood Colliery with the main line. This colliery, which belongs to the Sheepbridge Coal and Iron Company, is working the "top hard" or Staveley bed of coal, at a depth of 160 yards. There are two shafts of 13 ft. diameter, each with iron tubbing to keep back the water, whereby the seam of coal is kept dry. The winding-engines are of 150 horse power, and engines are being placed underground for the purpose of facilitating the conveyance of coal to the bottom of the shafts. The machinery and appliances of the colliery are capable of producing 1000 tons of coal daily. It is probable this branch will be carried forward to join the Manchester, Sheffield, and Lincolnshire Railway, at Kiveton Park, thus giving access to the coal of the Norwood Colliery and the Kiveton Park Colliery, lately established near the Duke of Leinster's estate to the Midland Railway and the Manchester, Sheffield, and Lincolnshire Railway also.—*Derby Reporter.*

REPORT FROM MONMOUTH AND SOUTH WALES.

MAY 7.—It appears to be a matter of great difficulty, if not impossibility, to shake off the depression which has characterised the Iron Trade for so many months, so as to enable it to assume a position anything like satisfactory. Three or four weeks ago a better feeling began to manifest itself in the trade of the district, but this has been checked to some extent in consequence of the dispute with the men in other iron-producing districts, both makers and buyers not being particularly anxious to enter into any new engagements until the wages question has been definitely settled. The orders coming in on home account are for comparatively small quantities, and only sufficient to meet actual necessities. It is, however, well known that the requirements of the home railway companies are large; and this, to some extent, tends to strengthen confidence that heavier orders will shortly find their way into the market. This session no fewer than 20 railway Bills have been withdrawn or disallowed, and the length of the new lines proposed to be constructed by these bills was 37½ miles. There are, however, 87 Bills remaining for the consideration of Parliament, but this is an exceedingly small number as compared with previous years. The larger portion of the remaining Bills will, no doubt, be sanctioned by Parliament, and the orders for materials required in their construction when given out, added to the requirements for re-laying permanent ways, will cause a greater amount of activity to prevail in the home trade than is now experienced. The exports to the United States are at present considerable, while enquiries from South America are limited. There is an increased demand from the British colonies, and ships are wanted at Cardiff and Newport to several ports. Clearances have been made to the Russian ports, but for no very large quantities, and, as yet, it is too early to speak positively as to the future; but if present anticipations are realised the exports to the Muscovite empire this season will be equal, if not greater, than those of last year, notwithstanding the formidable competition with Belgian makers, who cut prices as finely as they can possibly do it to enable them to secure as many of the Russian orders as are to be obtained. The principal enquiries for pigs are for the best brands, chiefly used in the manufacture of tin-plates, but there is not so much business doing as there was a few weeks ago. It was generally believed that the reduction in wages had been accepted at all the ironworks in South Wales, but the opposition offered this week has not only weakened the supposition, but at Dowlais it assumed a very serious character. Something like 10,000 persons are employed in the ironworks there, and the first pay since the reduction took place on Saturday, when several of the ballers and others complained at having the reduction brought home so practically to themselves. Fears were then entertained that the dissatisfied ones would resist the reduction, and on Monday morning the ballers wrote underneath the orders on their slates that unless the old rate of wages was paid they should discontinue work. The manager (Mr. Menelaus), with great coolness and determination, recalled the order to light up, and ordered the gates to be closed at once. Shortly after the other classes of workmen began to arrive, and were greatly astonished on finding the gates closed against them. Some thousands walked about the streets the whole of the day, and all labour ceased. Fortunately, however, the closing was only temporary, as operations were resumed on the following morning, on the arrangement of a month's notice. It is difficult to say whether the men will resist working on the reduction after the expiration of the month's notice; but a strike as trade is at present would be a most idiotic act, the hands being well aware that for some time past ironmasters have derived no profit from their works, which in some cases have been kept going at a positive loss. The Aberdare Works, belonging to Messrs. Fothergill and Co., are now in course of stoppage, in consequence of some few of the hands having been on strike for several weeks past, and on their account hundreds of persons have been thrown out of employment. Tin-plate makers have several orders on their books, and scarcely any stocks on hand.

For Steam Coal there is an average demand from the East and

continental markets, and from the French markets enquiries are steadily increasing. The closing of the war in Abyssinia will, no doubt, cause a falling off in the demand for the Mail Packet stations, but this will not have any material effect on the exports, as for some weeks past the Mail Packet Companies have been gradually reducing stocks at their coaling depots. The falling off, if any, in the demand for the East will be met by the additional quantity that will be required in Her Majesty's ships of war, the Lords of the Admiralty having again decided that none other but Welsh smokeless steam coal shall be used in Her Majesty's steam-ships, which not only places South Wales in the high and proud position it formerly held, but clearly sets forth the superiority of the Welsh smokeless steam coal for all purposes of steam navigation. Respecting the strike, the dispute between masters and men is no nearer adjustment than it was three months ago. At Abercarn a number of the masters, who were on strike have returned to the neighbourhood, but the men, but about 40 of the old hands have gone in on the masters' terms, and it is generally believed that the remainder will follow their example before long, as those who have a little clear-sightedness can now discover that they have acted most unwisely, and have been misled by bad and malicious advisers, having done no good, but of mischief more than they will ever be able to repair. In the eastern valleys of Monmouthshire the men who gave notice a month ago to leave work unless the old rate of wages was paid have come to an arrangement with the masters; therefore, the evil effects of a strike will not be experienced in that neighbourhood. At the South Wales Colliery the Bilston men and women continue at work, notwithstanding every inducement has been held out by the turn-outs, who begin to see that there are plenty of men to be got on the terms they themselves refuse. In Glamorganshire the hands at two or three pits are still out, but new hands are being introduced, and paid a weekly wage with which they express themselves perfectly satisfied; and if this plan were adopted throughout the whole of the Principality it would be a great step towards satisfaction to the workmen than that they have towards the present system of payment. Some of the turn-outs have again resorted to acts of violence, but it is satisfactory to find that the magistrates have expressed their determination to punish severely all persons against whom such offences are proved. On Tuesday William Jones and Edward Rees were taken before the Blackwood magistrates charged with beating and assaulting William Bishop, Edward Hill, and Andrew Nield, three of the Cornishmen lately introduced at the Rhoscewll Colliery, and as three cases were clearly proved against each of the defendants the Bench inflicted a fine of 15*s.* in each case, and in default of payment ordered them to be each imprisoned for three weeks. This, no doubt, will deter others from following their example, as the turn-outs are well aware if they are detected in acts of violence they will meet with a similar punishment.

A fortnight ago it was announced that it was in contemplation to present Mr. David Williams, the engineer of the New Melin Tinworks, with a testimonial. Since that time 50*l.* has been subscribed by the workmen of the firm of Messrs. Leach and Co., the proprietors of the works, to show the esteem and respect they entertain for him.

The Clydach Ironworks (which have been at a standstill for about eighteen months), it is rumoured, will be started before long by Mr. John Jayne, one of the directors and a large shareholder in the old company. It is to be hoped the rumour will prove correct, as it would confer a great benefit upon the neighbourhood, as the operatives, the larger portion being natives, have undergone many privations and a vast amount of suffering since the works were stopped.

The first turf of the new tinworks, to be erected opposite the old Garth furnaces, Maesteg, was cut on Thursday, and the works are to be completed as soon as possible.

On Saturday evening a handsome gold watch and chain were presented to Mr. Caull, the late manager of the Swansea Iron and Tin-Plate Works, Cwmbrila, on the occasion of his leaving for a post he has undertaken in the North of England. Several excellent speeches were made by the employees and others, all of whom spoke in the highest terms of the able manner in which Mr. Caull had discharged the duties of manager at the above-named establishment. The pleasures of the evening were considerably heightened by the able manner in which the Cwmbrila brass band performed a selection of favourite airs, the proceedings being brought to a close at a very seasonable hour.

The Newport Dock Company half-yearly meeting was held this day, Mr. Samuel Homfray in the chair. The directors' report recommended that 1*d.* per share (in amount 1500*l.*), the last half-year's interest on the first preferential shares, Act 1844, be paid on May 30, and that a dividend, amounting (less income tax) to 3768*l.* 1*s.*, for eight months ending Dec. 31, 1867. On the second preferential shares, Act 1854, be declared payable on the said May 30, a balance of 3062*l.* 2*s.* 10*d.*, then remaining to be carried to the next half-year's account. The receipts showed an increase over the corresponding half-year, notwithstanding the depression in trade consequent on the colliers' strike in the district. During the six months 3768 tons of coal had been shipped, against 219,894 tons in the corresponding period of last year; 54,359 tons iron against 42,385 tons in 1866; and 12,623½ tons timber, as compared with 8594 tons for the corresponding six months of 1867. The report was adopted, and the retiring directors were re-elected, and Mr. George B. Gething was unanimously elected in the room of Major Stretton, deceased.

The arrivals at Swansea include—The *Celicia*, from Cherbourg, with 130 tons of iron ore, for R. Crawshaw; Clementine, from Redon, with 50 tons of iron ore, for T. Walters; Elise, from Sumples, with 150 tons of zinc ore, for order; Alina, from Motril, with 200 tons of zinc ore, for H. Bath and Son; Stranger, from Leghorn, with 323 tons of copper ore, for H. Bath and Son; Edgar, from Cobia, with 48 tons of Barilla, for Richardson and Co.; 264 tons of copper regulus and 388 tons copper ore, for Elford, Williams, and Co.; Johannes, from Rotterdam, with 100 tons of phosphoric sulphur ore, for order. San Jose, from Coquimbo, with 260 tons of copper regulus, 200 tons of bar copper, 120 tons of copper ingots, and 64 tons of lead, in pigs, to order.

THE INSTITUTION OF CIVIL ENGINEERS.—At the ordinary general meeting, on Tuesday, May 5 (Mr. Charles Hutton Gregory, President, in the chair), 22 candidates were duly elected, including five Members—Mr. William Bage, Westminster; Mr. Francis Brady, resident engineer, South-Eastern Railway; Mr. Maximilian Hjortberg, Engineer-in-Chief of the Chicago, Burlington, and Quincy Railroad and Extensions, Chicago, U.S.; Mr. George William Vivian, Executive Engineer, P.W.D., Bengal; and Mr. J. Wood, engineer on the Corkermouth, Keswick, and Carlisle Railway; and 17 Associates—Mr. Charles Dallas Alexander, B.A., P.W.D., Calcutta; Le Chevalier Zosimo Barroso, Ceara, Brazil; Mr. Edwin Bidder, Delhi Railway; Mr. Peter Brotherhood, Clerkenwell; Mr. Joao Neri Ferreira, Rio de Janeiro; Mr. Thomas Gibson, Westminster; Mr. James Hartley, M.P., Sunderland; Mr. Edward John Jones, late of the Ceylon Railway; Mr. Henry Augustin Ormano Mackenzie, Bloomsbury, in the district; Mr. John Murray, Glasgow; Mr. Campbell Scott Montgomerie, R.E., P.W.D., Bengal; Lieutenant Patrick Montgomerie, late of the P.W.D., Government of India; Mr. Walter Nelson, Glasgow; Mr. Samuel Barton Newton, late of the Ceylon Railway; Mr. Richard Proctor-Sims, engineer to the Mazagon Land and Reclamation Company, Bombay; Mr. Horace James Rydon, Highbury New Park; and Mr. William Joshua Trehearne, surveyor to the Chiswick Improvement Commissioners. It was also announced that the Council, acting under the provisions of section 4 of the bye-laws, had, since the last announcement, admitted as Students of the Institution—Messrs. John Savory Carey, Humphrey Henchman, and John Arthur Owen.

SOCIETY OF ENGINEERS.—At the meeting of members, held on Monday (Mr. Baldwin Latham, President, in the chair), it was unanimously resolved—"That the thanks of the society be conveyed to Mr. Whitworth for his munificent endowment of 30 free scholarships for the engineering profession." The following candidates for election were duly elected as Members—Messrs. E. D. Latham, borough engineer, Bideford, Devon; G. B. Ritchie, resident engineer, London and North-Western Railway, Leighton Buzzard. As Associate—Mr. R. J. Cheeswright, clerk to the Croydon Board of Health, Town Hall, Croydon. It was announced that the Council had made arrangements for the members to visit various public works during the coming vacation.

NEW CUPOLA FOR IRON FOUNDRIES.—At the Institution of Mechanical Engineers, Mr. J. Eichhorn read a paper descriptive of an improved cupola, the invention of Mr. Henry Kriger, of Hanover. The objects aimed at are to concentrate the heat in the lower part of the furnace, and render the action uniform throughout the operation of melting, and to prevent the blast from injuring the heated metal by oxidising it. The vertical shaft of the cupola, which is made rectangular in form, opens into a lower chamber, the bottom of which forms the hearth to receive the melted metal. Round the bottom of the shaft runs an air passage, into which the blast is delivered from the air main; and the blast entering through this passage cools the brickwork of the cupola, and becomes heated itself; it then passes down into the melting chamber of the cupola, through two long slots in the roof, one at the front and the other at the back, extending the whole breadth of the hearth. The front of the furnace is closed by an iron door on hinges, extending the whole breadth, and lined with clay and sand on the inside; and a smaller door is placed at the back, to facilitate the drawing of the furnace after each heat. The cupola is charged from the top of the vertical shaft in alternate layers of coke and iron as usual, a filling of coke being first put in, the coke being closely packed, and the iron on the working of the cupola, the coke falling into the melting chamber from the vertical shaft stands there in a heap, upon which the blast rushes through the two transverse slots in the roof; and the heat from the burning fuel being radiated into the air passage, the blast becomes prepared for combining rapidly with the carbon of the fuel before it has an opportunity of coming in contact with the melting metal and wasting it by oxidation; and the action of the blast is finished at a considerably lower level than in ordinary cupolas. The metal obtained in this cupola is found to be very fluid, more so than in an ordinary cupola, while retaining its softness; and the consumption of coke is from 1½ to 1¾ cwt. per ton of iron melted, according to the magnitude of the charge, the loss of metal in melting being only from 2¼ to 3 per cent.

MARVELLOUS EXTRICATION FROM A COAL MINE.—The *Wreathman* Advertiser gives some interesting particulars of the eight days' entombment of a man and boy in the Afonetha Colliery, near Ruabon. The fall of earth occurred on the morning of April 23, and from that time till an early hour on May 1 all efforts to reach the unfortunate fellows, who had been working at a depth of 80 yards, were fruitless. At last they were got at, more dead than alive, and, after being treated by experienced surgeons, were drawn to the surface. The boy, Samuel Lewis, wished to walk home, but by direction of Dr. Roberts, of Ruabon, he was enveloped in blankets and carried. On the way he asked what day it was, and on being told Friday, he said he thought it was Sunday (i.e. the 26th), he was so hungry. His companion, a collier, named Daniel Jones, was conveyed home in a carriage. Owing to their reduced state—they had subsisted during their confinement on water alone—the only nourishment given to them for several hours was water gruel, administered at short intervals. For a lad he has since been able to give some account of the strange adventure. The day he and Jones heard the movements for their extrication going on above. After a while they started to wade through the pit, in the hope of discovering some way of egress or means of supporting life. At one time they were separated by another fall of earth, and had to scratch their way to each other, the marks of which painful operation are still visible on the poor boy's fingers. They walked and crept through every known and unknown part of the working. When seized with despair they sat down and prayed; when exhausted with fatigue they lay down in each other's arms, with a little hay and straw for their blanket, and a few stones for their pillow. Neither of them appears to remember much of what took place after Saturday, and it is thought that subsequent to that day they must have been either asleep or unconscious. Both are going on exceedingly well.

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 FROM P. J. MARGERY, ESQ., C.E., ENGINEER OF THE SOUTH DEVON RAIL-
 WAY COMPANY.
 South Devon Railway Engineer's Office, Dawlish, Sept. 23, 1865.
 I have extensively used Messrs. Peacock and Buchan's No. 3 paint or composition,
 on the viaducts and bridges of the South Devon Railway, and I consider
 it to be a paint of very good qualities, and that two coats of it are equal to three
 other paints; also that its durability is greater.
 (Signed) P. J. MARGERY, Engineer S.D.R., M.I.C.E.
 N.B.—The South Devon Railway Company have continued to use it, and are
 now painting their stations with it.—February, 1868.
 EXTRACT OF A LETTER FROM EDWARD WOODS, ESQ., C.E.
 3, Storey Gate, Westminster.
 DEAR SIR,—Please prepare 6 cwt. of your composition for preserving timber;
 put up in strong wooden casks, to go round the Horn for the Copley Railway
 Company. Believe me, yours truly,
 Capt. George Peacock. (Signed) EDWARD WOODS.
 For price, &c., apply to—
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 MATERIALS (whether HARD or SOFT) at the rate of from TEN to THIRTY
 TONS AN HOUR, according to the size and strength of the one used, and the
 amount of power available to drive it.
 This unique and efficient mill, unparalleled for novelty, wholesale execution,
 and dispatch, is rapidly superseding throughout the United Kingdom and
 abroad all other pulverising machines at the above-named and other works, at
 an immense improvement to their manufacture in quality and quantity, and at
 a saving in steam-power and labour, in some individual cases amounting to
 several hundreds of pounds a year.
 An illustrated pamphlet, fully describing the disintegrator, with woodcuts and
 prices (which range from £50 to £140), together with the names and addresses
 of some two hundred of its purchasers (some of whom have taken two, three,
 or even four of them), will be forwarded at any time, free of charge, on appli-
 cation to the patentee, as below, who will also send, by sample post where
 specially required, samples of powdered materials in the precise state as they
 are pulverised by various disintegrators, consisting of fire-clays, gaultier, shale,
 heavy burnt stoneware, coal, pitch, &c., and likewise the names of some of the
 purchasers who have kindly consented to show theirs in operation to bona fide
 enquirers.
THOMAS CARR, PATENTEE, MONTPELIER, BRISTOL.

WILTON'S MATHEMATICAL INSTRUMENT ESTABLISHMENT REMOVED
 from St. Day to A. JEFFERY'S, CAMBORNE.

W. H. WILTON begs to thank his friends for their very liberal support for
 so many years, and informs them that he has now declined business in England
 in favour solely of Mr. A. JEFFERY, MATHEMATICAL INSTRUMENT
 MAKER, CAMBORNE, whom he considers (having been an assistant to his
 father for several years) to be the best, cheapest, and most suitably maintaining
 the good name universally awarded to Wilton's Instruments.

A. JEFFERY
 Respectfully begs to inform Mine Managers, Surveyors, Engineers, &c., that
 having purchased Mr. Wilton's business, and the very valuable acquisitions and
 appliances belonging thereto, he has enlarged his Mathematical Instrument
 Manufactory, and is prepared to supply THEODOLITES, DIALS, POCKET DIALS,
 LEVELS, TRAVERSING AND PLAIN PROTRACTORS, CASES OF DRAWING INSTRUMENTS,
 MEASURING CHAINS AND TAPES, ASSAYERS' SCALES AND WEIGHTS, EN-
 GINE COUNTERS, and, in short, every description of Instruments used in SUR-
 VEYING, MEASURING, MAPPING, &c.
 Repairing in all its branches promptly attended to.

THE SCIENTIFIC WONDER.
 This INSTRUMENT has a CLEAR MAGNIFYING POWER OF THIRTY-
 TWO THOUSAND TIMES, shows all KINDS OF ANIMACULAE in WATER,
 CIRCULATION OF THE BLOOD, &c., &c., ADULTERATION OF FOOD, MILK,
 &c., and is just the MICROSCOPE that every Surgeon, Dentist, Schoolmaster,
 Scientist, and Working Man should have. It is pronounced by the press (and
 all scientific men who have seen it) to be the best, cheapest, and most simple
 microscope ever invented. It has twenty times the power of the Coddington or
 Stanhope Microscope, and is twice as good as the celebrated Rae Microscope
 (which has been awarded so many Prize Medals), as may be inferred from the
 following letter received from Mr. Rae himself:—

To Mr. McCulloch, Philosophical Instrument Maker.
 Carlisle, December 12th, 1867.—SIR: Having seen some of your Diamond-Plate
 Lenses, I write to ask your terms for supplying me with the same per 20 gross,
 as I consider them superior to mine. RAE AND CO., Opticians, Carlisle.

I beg to inform the public that I have no agents anywhere, and all pretended
 agents are impostors. The above instrument can only be had from me, in Bir-
 mingham. Those at a distance who care for instruction and amusement, can
 have it safe and free by sample post, with book of full instructions, on receipt
 of 32 p. stage stamps. Samples sent abroad, two stamps extra.
 All persons wishing further particulars and testimonials, must send stamped
 and addressed envelope.

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 MANUFACTURERS OF STEAM ENGINES OF EVERY DESCRIPTION, made
 on the BEST and NEWEST PRINCIPLES. We beg more especially to call the
 attention of the public to the MANUFACTURE of our BOILERS, which have
 been tested by most of our leading engineers. PUMP WORK CASTINGS OF
 EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and
 HEAVY SHAFTS OF ANY SIZE. CHAINS made of the best iron, and war-
 ranted. MINERS' TOOLS and RAILWAY WORK OF EVERY DESCRIPTION.
 ALL ORDERS FOR ABROAD RECEIVE THEIR BEST ATTENTION.
 NICHOLLS, MATHEWS, and Co. have had 20 years' experience in supplying ma-
 chinery to foreign mines, and selecting experienced workmen to erect the same,
 where required.
 Messrs. NICHOLLS, MATHEWS, and Co. have always a LARGE STOCK of
 SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

WILLIAMS'S PERRAN FOUNDRY COMPANY,
 PERRANARWORTHAL, CORNWALL.
 MANUFACTURERS OF STEAM PUMPING and EVERY OTHER KIND of
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 of every description, of the very best quality. Estimates given for the supply of
 any amount of machinery.
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RAILWAY CARRIAGE COMPANY (LIMITED)
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 Passenger carriages and wagons built, either for cash or for payment
 over a period of years.
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 LONDON OFFICES.—6, STOREY'S GATE, GREAT GEORGE STREET,
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THE BIRMINGHAM WAGON COMPANY (LIMITED)
 MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for
 HIRE and SALE, by immediate or deferred payments. They have also wagons
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 cially for shipping purposes. Wagons in working order maintained by contract.
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 TORS' WHEELS and AXLES, and other IRONWORK used in the CON-
 STRUCTION OF RAILWAY ROLLING STOCK.
 OFFICES AND WORKS,
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 By Special Appointment to
 HER MAJESTY and H.R.H. THE PRINCE OF WALES.
 Every bottle is protected by a label having name and trade mark.
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WALNEY SCAR QUARRIES
 SITUATE NEAR CONISTON OLD MAN.

For particulars and samples of these very durable green and grey slates, ad-
 dress "Manager," Walney Scar Slate Works, Broughton-in-Furness.

GREEN SLATES.
GREEN SLATES OF ANY SIZE, and of the CHOICEST
 COLOUR and QUALITY, can now be OBTAINED from the DOROTHEA
 WEST SLATE COMPANY (LIMITED), CARNARVON.
 The "CHURING CROSS HOTEL," "STAR AND GARTER HOTEL" (Richmond),
 "LONDON-BRIDGE HOTEL," and many other public buildings, are covered with
 these elegant slates.
 Orders will be executed in regular succession.
 Apply to Mr. THOMAS HARVEY, General Manager, 9, Segontium-terrace, Car-
 narvon, or 33, King-street, Cheapside, London.

DYNAMITE, OR NOBEL'S PATENT SAFETY
BLASTING POWDER,
 May now be had from
MESSRS. WEBB AND CO., CARNARVON,
 Sole consignees from the patentee.

This powerful BLASTING AGENT will not explode from a spark, or concus-
 sion alone, but requires the combined effect of both, and is fired by a strong
 percussion cap and ordinary fuse. In a compressed state it may be fired in damp
 holes, or under water.
 Force, SEVEN TIMES that of the BEST GUNPOWDER.
 It will shiver to pieces cast or wrought-iron, or the toughest teak timber. No
 tamping is required. It is by far the safest explosive for blasting purposes
 ever discovered.

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BLASTING OIL.

THE EXPLOSIVE FORCE of this BLASTING OIL is TEN
 TIMES that of GUNPOWDER, and the ECONOMY and SAVING in
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 It will not explode from a spark or fire, but from concussion alone, and is con-
 sequently much less dangerous than gunpowder or gun-cotton.
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 ping than water being required.
 One charge of this blasting oil, which is now being used with wonderful effect
 in all the largest slate quarries in North Wales, will displace as much slate rock
 as four or five charges of gunpowder; and its great force, acting on a large
 quantity of good slate rock, shakes and displaces it at the natural joints, or
 cracks, without damaging the slabs nearly so much as the more numerous
 blasts from any other blasting material would do.
 This invaluable quarrying agent may now be obtained from Messrs. WEBB
 and Co., Carnarvon, sole consignees from the patentee.

COAL CUTTING MACHINERY.
 THE WEST ARDSLEY COMPANY, having, by recently patented improve-
 ments, perfected their coal cutting machinery, worked by compressed air, are
 NOW READY TO MAKE CONTRACTS for the CONSTRUCTION and USE of
 their MACHINES.
 The results of twelve months' experience in the working of these machines, by
 the West Ardsley Company, have proved most satisfactory, their use being found
 to CHEAPEN the COST and IMPROVE the average SIZE of the COAL, to
 LIGHTEN the LABOUR, and also to MODIFY the SANITARY CONDITION
 of the MINE.
 All communications to be made to Messrs. FIRTH, DONISTHORPE, and BOWER,
 No. 8, Britannia-street, Leeds.

NOTICE.—The WEST ARDSLEY COMPANY, having reason
 to believe that their patents are being infringed upon, hereby give no-
 tice that they will TAKE LEGAL PROCEEDINGS AGAINST ALL PARTIES
 who may MAKE FOR SALE, or USE ANY MACHINERY in the construction
 of which any such INFRINGEMENT is MADE.

ANALYSES, ASSAYS, AND CHEMICAL INVESTIGATIONS,
 OF ALL DESCRIPTIONS, ARE UNDERTAKEN BY
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 ANALYTICAL AND CONSULTING CHEMIST, and CHEMICAL ENGINEER
 (Author of "Petroleum and Its Products," "The Manufacture of
 Caustic Soda," and other Chemical Memoirs),
 15, NEWSTEAD ROAD, SMITHDOWN ROAD, LIVERPOOL.

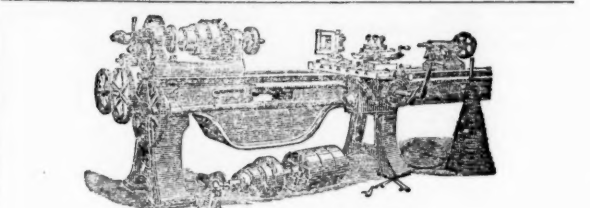
Mr. TATE, who has had many years practical experience in the erection and
 management of extensive chemical manufactories, and oil distilleries and refin-
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 PROCESSES.
 THE VALUATION OF WORKS.
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 with CHEMICAL MANUFACTURES.

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 LATIONS, DRAWINGS, &c.

MR. MICHAEL HENRY,
 Memb. Soc. Arts, Assoc. Soc. Engineers, Author of the "Inventors' Almanac,"
 and the "Defence of the Patent Law."
 PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.
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 Paris Exhibition. Mr. HENRY has had special experience in technical French,
 and in French Manufacturing and Commercial Matters.
 Offices, 69, Fleet-street, E.C., London, corner of and entrance in Whitefriars-
 street.

BICKFORD'S PATENT SAFETY FUSE
 Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at
 the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IM-
 PERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL
 EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION,"
 in Paris, 1867.

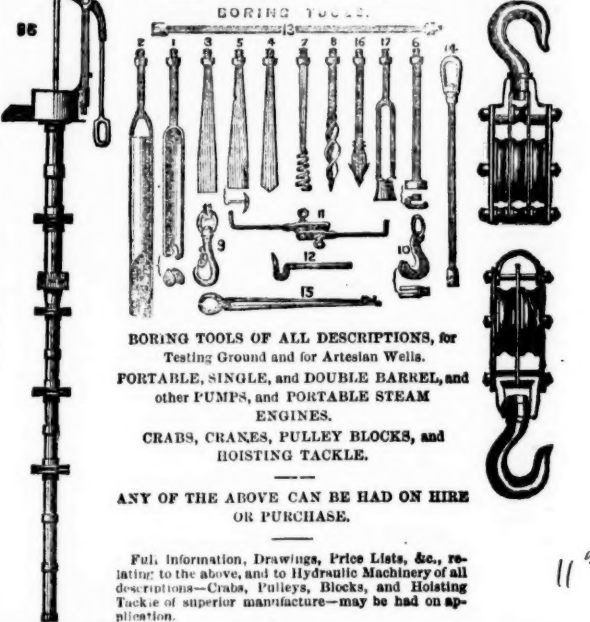
BICKFORD, SMITH, AND CO.,
 of TUCKINGMILL, CORNWALL, MANUFAC-
 TURERS OF PATENT SAFETY FUSE, having been in-
 formed that the name of their firm has been attached to
 fuse not of their manufacture, beg to call the attention of
 the trade and public to the following announcement:—
 EVERY COIL OF FUSE MANUFACTURED by them
 has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF
 GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SE-
 PARATE THREADS as THEIR TRADE MARK.



STEAM ENGINES,
ENGINEERS' TOOLS, BUILDERS' CONTRACTORS'
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 Of every description, new and secondhand,
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At greatly reduced prices. Best materials, workmanship, and finish, warranted,
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 Monthly Circulars forwarded free of charge.

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 MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND,
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BORING TOOLS OF ALL DESCRIPTIONS, for
 Testing Ground and for Artesian Wells.
PORTABLE, SINGLE, and DOUBLE BARREL, and
 other PUMPS, and PORTABLE STEAM
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CRABS, CRANES, PULLEY BLOCKS, and
HOISTING TACKLE.
ANY OF THE ABOVE CAN BE HAD ON HIRE
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 Full information, Drawings, Price Lists, &c., re-
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 Tackle of superior manufacture—may be had on ap-
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THOMAS TURTON AND SONS,
 MANUFACTURERS OF
 CAST STEEL for PUNCHES, TAPS, and DIES,
 TURNING TOOLS, CHISELS, &c.
 CAST STEEL PISTON RODS, CRANK PINS, CON-
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 AXLES, SHAFTS and
 FORGINGS OF EVERY DESCRIPTION.
 DOUBLE SHEAR STEEL, FILES MARKED
 BLISTER STEEL, T. TURTON
 GERMAN STEEL, EDGE TOOLS MARKED
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 Locomotive Engine, Railway Carriage and Wagon
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 Where the largest stock of steel, files, tools, &c., may be selected from.

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 (ESTABLISHED 1770.)
 MANUFACTURERS OF EVERY DESCRIPTION OF
 IMPROVED
PATENT FLAT AND ROUND WIRE ROPES,
 From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
 SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CON-
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 MANUFACTURERS OF FLAT and ROUND HEMP and IRON and STEEL
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 MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER
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 WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD
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LONDON. For twenty years their biscuits have maintained a high reputation.
 For export they are specially prepared, so as to keep in any climate. To wholesale
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MEAT BISCUITS FOR DOGS.
M EAT BISCUIT FOR DOGS, made by the CARLISLE BISCUIT
COMPANY, is undoubtedly the best and cheapest food for dogs that has
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 highest condition. Many of the prize-taking dogs at the last Birmingham show
 were fed, from puppies, on this biscuit. Price 20s. per cwt. at Carlisle; or at
 their depot, 56, City-road, London, 22s. per cwt. Post-office orders payable to
 WILLIAM SLATER, Carlisle. Sold by corn chandlers everywhere. Book of testimo-
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WILLIAM SLATER, Managing Director.

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COUNTIES ADVERTISER. (Established 1764.)
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 Published every morning, price 1d.
 Offices, 42, Grey-street, Newcastle-upon-Tyne; 30, Howard-street, North
 Shields; 195, High-street, Sunderland.

J. JACKSON AND CO., ENGINEERS, LONDON, E.C.

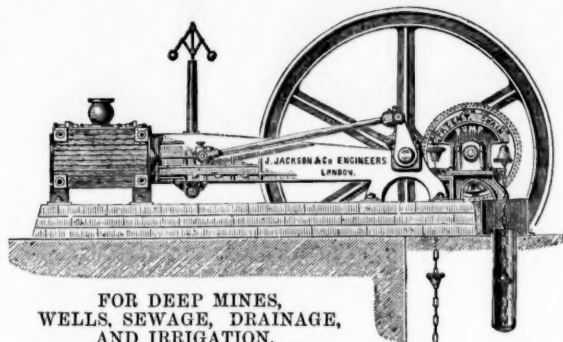
BASTIER'S PATENT CHAIN PUMP.

ABYSSINIAN EXPEDITION.—Three of these Pumps were forwarded along with the Expedition last Autumn, and various telegrams have since been received ordering others to be sent IMMEDIATELY.

The Bastier Pump is now used throughout England—sizes varying from 2½ to 15 inches diameter, and up to 300 feet deep.

It is being used with great satisfaction for lifting fluids for various purposes in Manufactories.

A SMALL PUMP MAY BE SEEN AT WORK ON APPLICATION TO MESSRS. J. H. GREENER AND CO., 5, JOHN STREET, ADELPHI, W.C., WHO WILL ALSO SUPPLY ANY INFORMATION REQUIRED.



FOR DEEP MINES, WELLS, SEWAGE, DRAINAGE, AND IRRIGATION.

PUMPS WITH STEAM ENGINES, AND CATTLE, WIND, OR HAND-POWER GEAR,

Manufactured by the proprietors of the patent,

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PRICE LISTS ON APPLICATION.

FOR THE COUNTIES OF NORTHUMBERLAND, DURHAM, YORK, DERBY, AND NORTH STAFFORD, APPLY TO

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HEATON'S PATENT.

THE LANGLEY MILL STEEL & IRONWORKS COMPANY

(LIMITED),

LANGLEY MILL, NEAR NOTTINGHAM,

Are now making Cast-Steel suitable for Tools, Taps, Dies, Chisels, &c., &c. Shear Steel, and Iron of a very superior quality, by their direct process, under the superintendence of the Patentee.

The range of quality which this process secures renders the Steel and Iron suitable for almost every purpose to which these materials can be applied. Also, CAST-STEEL CASTINGS of all kinds from PATTERNS or DRAWINGS.

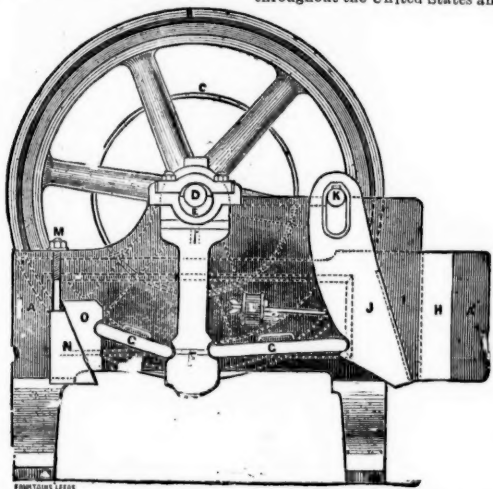
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, McADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour. For the Parys Mining Company, JAMES WILLIAMS.

H. R. Marsden, Esq.

Eaton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery. For the Parys Mining Company, THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly.—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes. For fine road metal, free from dust. Messrs. ORD and MADDISON, Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton. JOHN LANCASTER.

Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or \$75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,

MEADOW LANE, LEEDS,

ONLY MAKER IN THE UNITED KINGDOM.

CAUTION!

BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

*His Honour the Vice-Chancellor Wood having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

SOLE MAKER IN ENGLAND,

H. R. MARSDEN, SOHO FOUNDRY, MEADOW LANE, LEEDS.

PATENT FLEXIBLE TUBING,

AND BRATTICE CLOTH FOR MINES

MANUFACTURED BY

ELLIS LEVER,

WEST GORTON WORKS, MANCHESTER.

PARIS EXHIBITION, Silver Medal for STEAM CRANES.

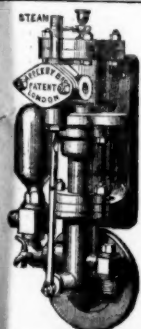
1867—AWARDS, Bronze Medal for DONKEY FEED PUMPS.

APPLEBY BROTHERS,

EMERSON STREET, SOUTHWARK,

LONDON, S.E.,

Engineers and Patentees of STEAM CRANES, DONKEY PUMPS, &c.

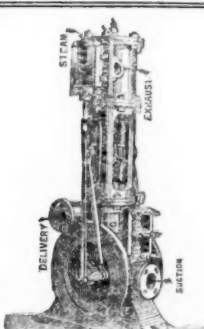


SINGLE-ACTING PUMP.

PATENT DONKEY PUMPS.

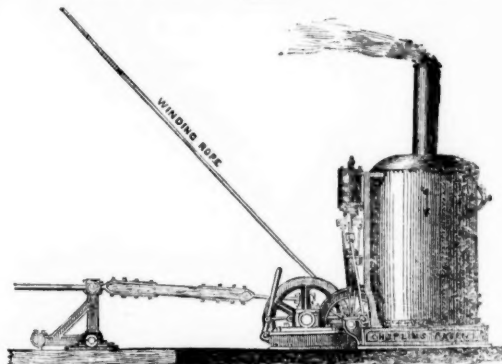
Nos.	1	2	3	4	5	6	7	8	9
Diam. of ram	1½ in.	2 in.	2½ in.	3 in.	3½ in.	4 in.	4½ in.	5 in.	5½ in.
*Gall. per hour	280	400	580	800	1200	1800	2100	2500	3800
Approx. H.P.	15	25	40	50	80	150	180	230	380
Single-acting price	£10 5s.	£12 10s.	£15	£18	£24	£33	£38	£48	£70
Double-acting do.	11 10s.	14 0s.	17	20	24	28	33	38	48
Double-acting pump on base plate	12 10s.	15 0s.	18	21	25	30	35	40	50

* Calculated at 200 strokes per minute.



DOUBLE-ACTING PUMP ON BASE PLATE.

Prize Medal—International Exhibition, 1862.



CHAPLIN'S PATENT PORTABLE STEAM ENGINES, FOR PUMPING AND WINDING.

SPECIALLY ADAPTED for PITS, QUARRIES, &c. SIMPLE and STRONG; require NO FOUNDATION or CHIMNEY STALK, and are EASILY ERECTED or REMOVED.

Sizes, from 2 to 30-horse power.

Stationary Engines, 1 to 30-horse power, with or without gearing.

Steam Cranes, 30 cwt. to 20 tons, for wharf or pit.

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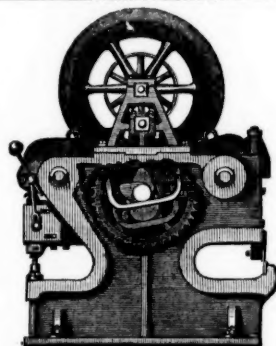
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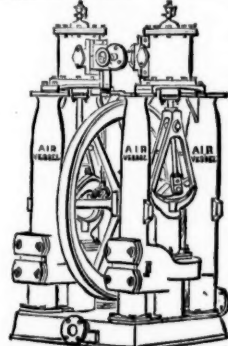
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In the Matter of the Silver Vein Mining Company (Limited),
Being wound-up voluntarily under the Companies Act, 1862.

NOTICE IS HEREBY GIVEN, that all PERSONS indebted to the above estate are REQUESTED to PAY the AMOUNT of their RESPECTIVE DEBTS into the hands of the liquidator forthwith, and that all creditors and persons having any claims or demands whatsoever upon or against the estate of this company are hereby required to send in their names and addresses, and the particulars of their claims or demands, to the undersigned, at the offices of the said company, No. 95, Bishopsgate-street Within, in the City of London, on or before the 30th day of May, 1868, after which date the liquidator, S. Richards, will proceed to distribute the assets of the said company amongst the persons entitled thereto, having regard only to the claims or demands of which he shall have had notice at the time of such distribution. All persons who shall not have sent in their claims or demands as aforesaid, will be excluded from participating in the assets of the said company.

Dated this 8th day of May, 1868.

S. RICHARDS, Liquidator.

In the Matter of the Companies Act, 1862,
AND OF THE
VOLUNTARY WINDING-UP OF THE DYFNAGWY MINES COMPANY.

THE CREDITORS OF THE ABOVE-NAMED COMPANY are REQUESTED, on or before the 23rd day of May, 1868, to SEND in their NAMES and ADDRESSES and the PARTICULARS of their DEBTS or CLAIMS to George Hadley, of No. 20, St. Helen's-place, in the City of London, the liquidator of the said company, or in default thereof they will be EXCLUDED from the BENEFIT of any DISTRIBUTION made before such claims or debts are sent in and proved.

COBB AND SOUTHEY, Solicitors to the above-named Liquidator.

Dated this 22nd day of April, 1868.

THE MINERA RAGMAN MINING COMPANY (LIMITED).—Notice is hereby given, that a SPECIAL MEETING of the shareholders of the Minera Ragman Mining Company (Limited) will be HELD at the Hotel, Whitwell, near Clitheroe, on THURSDAY, the 18th day of June, 1868, at Three o'clock in the afternoon, for the purpose of taking into consideration the advisability of dissolving the company and winding the same up voluntarily under the provisions of the Companies Act, 1862, and to appoint a Liquidator.

By order of the directors, THOMAS HUGHES, Secretary.

8, Temple-row, Wrexham, 4th May, 1868.

GENERAL MINING COMPANY FOR IRELAND (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders of this company will be HELD at their office, 29, Westmoreland-street, Dublin, on MONDAY, the 1st day of June next, at One o'clock P.M., for the following purposes:—

1.—To receive the accounts for the past half-year, ending 2d April last.

2.—To elect directors and auditors of the company for the ensuing year; the ballot-box for which election will be closed punctually at Three o'clock in the afternoon of the said day.

3.—To transact the general business of the company.

By order, H. C. FOWLER, Secretary.

29, Westmoreland-street, Dublin, May 1868.

The Transfer-books of the company will be closed from Wednesday, the 20th day of May, to Tuesday, the 2d of June, inclusive.

A printed list of the qualified candidates for the directors will be ready at the office after the 20th inst.

UNITED MEXICAN MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company, for the purpose of a CALL of TWO SHILLINGS AND SIXPENCE PER SHARE was made, payable on or before the 1st July, 1868.

Office, 3, Great Winchester-street-buildings, E.C., London, May 6, 1868.

THE SCOTTISH AUSTRALIAN MINING COMPANY (LIMITED).—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders of the Scottish Australian Mining Company (Limited) will be HELD at the London Tavern, Bishopsgate-street, London, on FRIDAY, the 15th day of May next, at Twelve o'clock at noon precisely, to receive the directors report and accounts, declare a dividend, and to transact the other usual business.

And notice is hereby further given, that, immediately after the business of the half-yearly general meeting of the company shall have been concluded, a SPECIAL GENERAL MEETING of the company will be HELD at the same place, at which a resolution will be proposed to increase the capital of the company.

The share transfer-books will be closed from Thursday, the 7th instant, until Friday, the 15th instant, both days inclusive.

By order of the directors, C. GRAINGER, Secretary.

1, King's Arms-yard, Moorgate-street, London, 4th May, 1868.

MOSQUITO AND POYALIAN LAND SECURITIES.—Notice is hereby given, that the TERM allowed for REGISTRATION of the above SECURITIES will EXPIRE on TUESDAY, the 12th May, 1868. After that date holders will lose the benefit of any grant from the Republic of Honduras.

Offices of the Central American Association, 4, Westminster-chambers, S.W.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire	10 0 0	—	—	9 7 8	0 5 0	Jan. 1868
200	Bottallack, t, c, St. Just	91 5 0	—	—	488 15 0	5 0 0	May 1866
4000	Brookwood, c, Buckfastleigh	1 11 0	—	—	0 10 0	0 2 6	April 1868
1000	Brookfield, t, Cardigan	12 0 0	—	—	9 9 0	0 6 0	May 1868
1000	Cashwell, t, Cardigan	2 10 0	—	—	0 1 0	0 1 6	Aug. 1866
916	Cargill, s, t, Newlyn	15 7 2	21	19 21	14 5 0	0 10 0	Jan. 1868
500	Creechbrowne and Penkell, t	—	—	—	2 5 0	1 5 0	April 1868
867	Cwm Erfin, t, Cardiganshire	7 10 0	—	—	26 13 0	0 15 0	April 1868
128	Cwmystwith, t, Cardiganshire	69 0 0	—	—	381 10 0	2 0 0	Dec. 1867
280	Derwent Mines, s, t, Durham	300 0 0	—	—	174 10 0	5 0 0	June 1867
1024	Devon Gl. Consols, c, Tavistock	40 1 0	450	—	1095 0 0	7 0 0	Mar. 1868
656	Ding Dong, t, Gwilt	14 6 0	—	—	0 10 0	0 10 0	Sept. 1867
358	Doleath, c, t, Camborne	128 17 6	—	—	844 10 0	4 0 0	April 1868
6144	East Caradon, c, St. Cleer	2 14 6	4 1/2	4 1/2	14 11 6	0 2 0	July 1867
300	East Darren, t, Cardiganshire	32 0 0	—	—	154 10 0	2 0 0	April 1868
128	East Pool, t, c, Pool, Illogan	24 5 0	—	—	427 10 0	5 0 0	Mar. 1868
1906	East Wheal Lovell, t, Wendron	3 9 0	8 1/2	8 1/2	3 11 6	0 10 0	Dec. 1867
2800	Foxdale, t, Isle of Man	25 0 0	—	—	71 0 0	0 10 0	Sept. 1867
5000	Frank Mills, t, Christow	3 18 6	—	—	3 5 6	0 5 0	Feb. 1866
5950	Gawton, c, Tavistock	3 16 0	—	—	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, t, Isle of Man	4 0 0	17	16 1/2	8 5 0	0 10 0	Mar. 1868
5908	Great Wheal Vor, t, c, Helston	40 0 0	18 1/2	16 1/2	12 15 6	0 7 6	Mar. 1868
1024	Herodfoot, t, near Liskeard	8 10 0	40	39 41	45 0 0	1 10 0	Feb. 1868
6000	Hingston Down, c, Calstock	5 10 6	—	—	0 10 0	0 5 0	April 1866
165	Levant, c, t, St. Just	10 8 1	—	—	1093 0 0	2 0 0	May 1868
400	Lisburne, t, Cardiganshire	18 15 0	—	—	501 10 0	3 0 0	Feb. 1868
3000	Maes-y-Safn, t, Flint	29 0 0	28	—	3 15 0	0 15 0	April 1868
9000	Marke Valley, c, Camborne	4 10 6	6 1/2	6 1/2	4 5 6	0 4 0	April 1868
3000	Mineral Land, t, Wrexham	1 0 0	—	—	0 13 0	0 3 0	Mar. 1868
1800	Minera Mining Co. L. Wrexham	25 0 0	175	165 175	233 13 0	5 0 0	May 1868
20000	Mining Co. of Ireland, c, t, c, t	7 0 0	—	20	—	0 5 7	Jan. 1867
40000	Mynydd Iron Ore	3 5 0	—	—	0 8 6	0 2 0	Mar. 1868
200	Parys Mines, c, Anglesey	50 0 0	—	—	160 0 0	2 10 0	Mar. 1868
12800	Prince of Wales, t, Calstock	0 12 6	2	2 1/2	0 4 6	0 1 0	Feb. 1868
6000	Provident United, t, c, St. Hilary	8 14 0	—	—	0 5 0	0 5 0	Feb. 1867
1190	Prosser, t, c, Breage	1 17 6	—	—	84 10 0	0 10 0	Mar. 1868
512	South Caradon, c, St. Cleer	1 5 0	405	395 405	580 10 0	6 0 0	Mar. 1868
6000	South Darren, t, Cardigan	3 6 6	—	—	0 10 0	0 1 6	April 1868
496	So. Wh. Frances, c, Illog. t	18 19 2	21	18 20	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, t, Mold	3 13 6	—	—	2 5 6	0 5 0	Feb. 1868
6000	Tincoff, c, t, Pool, Illogan	9 0 0	15	14 15	19 6 0	0 5 0	Mar. 1868
2000	Trumpet Cons., t, Helston	11 10 0	—	—	12 10 0	0 10 0	Mar. 1868
3900	W. Chiverton, t, Perranzabuloe	10 0 0	65	64 65	25 7 6	2 0 0	Feb. 1868
5000	West Godolphin, t, c, Breage	4 0 0	—	—	0 2 0	0 2 0	Dec. 1867
512	Wheal Bassett, c, Illogan	5 2 6	65	—	631 10 0	1 0 0	April 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	—	—	300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, s, t, Kea	10 10 0	—	—	—	2 0 0	Jan. 1868
4295	Wheal Kitty, t, St. Agnes	5 4 6	—	—	3 5 0	0 2 0	Feb. 1868
1024	Wheal Mary Ann, t, Menheniot	8 0 0	22 1/2	21 1/2	64 5 0	0 17 6	Mar. 1868
80	Wheal Owles, t, St. Just	70 0 0	—	—	350 15 0	7 10 0	Feb. 1868
396	Wheal Seaton, c, t, Camborne	0 0 0	77 1/2	80 82 1/2	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe	0 5 0	—	—	1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c, t, Wicklow	2 10 0	—	—	43 16 0	0 6 0	April 1868

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus.	Total divs.	Per share.	Last paid.
35000	Alamillos, t, Spain	2 0 0	—	—	0 2 6	0 1 6	Mar. 1868
20000	Australasian, t, South Australia	7 7 0	—	—	0 1 0	0 1 0	Aug. 1867
14000	Cape Copper Mining	7 0 0	12	11 11 1/2	3 2 6	0 10 0	Feb. 1868
71612	Don Pedro North del Rey	0 14 0	2 1/2	2 1/2	0 15 9	0 5 0	Mar. 1868
70000	English and Australian, c, t	2 10 0	—	—	—	0 1 0	Feb. 1868
25000	Fortuna, t, Spain	2 0 0	—	—	1 9 4	0 2 0	Mar. 1868
20000	Gen. Mining Assoc., Nova Scotia	20 0 0	—	—	23 10 0	0 15 0	June 1867
10000	Gonessa, t, c, [£5000 £5 pd.]	—	—	—	10 per cent.	—	July 1867
68000	Guapuma Mining Co., Australia	—	—	—	0 1 4	0 0 0	Feb. 1868
15000	Llanes, t, Spain	3 0 0	2 1/2	—	11 11 8	0 3 4	Mar. 1868
50000	Panuelillo, c, Chile	3 0 0	—	—	10 per cent.	—	Yearly
6000	Peel River Land and Mineral	100 0 0	—	—	—	—	—
100000	Ponteland, s, t, France	20 0 0	—	—	4 14 3	0 11 0	June 1867
10000	Port Phillip, c, Clunes	1 0 0	1 1/2	1 1/2	1 1 0	0 1 0	May 1868
20000	Scottish Australian Min. Co. L.	1 0 0	1 1/2	—	7 1/2 per cent.	—	Nov. 1867
11000	St. John del Rey, Brazil	15 0 0	—	—	81 10 0	4 5 0	Dec. 1867
12500	Victoria, c, t, c, [£5000 £5 pd.]	0 0 0	—	—	1 4 0	0 6 0	Feb. 1868
50000	Victoria (London) [£5000 £5 pd.]	25000 12s. 6d. pd.]	—	—	0 9 0	0 1 0	Jan. 1866
40000	West Canada Mining Co.	1 0 0	—	—	0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus.	done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic	1 0 0	—	—	—	—
100000	Anglo-Brazilian, g, t	0 10 0	—	—	3 1/2	3 1/2
125000	Anglo-Italian, g, t	0 10 0	—	—	3 1/2	3 1/2
20000	Australian United, g	1 0 0	—	—	—	—
2464	Burra Burra, c, South Australia	5 0 0	—	—	—	—
20000	Capula, s, Mexico	3 0 0	—	—	—	—
30000	Castro, s, Nicaragua	5 0 0	—	—	2 1/2	2 1/2
12000	Cuba Copper Co., c, Cuba	45 10 0	—	—	—	—
10000	Copiapu Mining Company, Chile	16 10 0	—	—	—	—
10000	Copiapu Smelting, Chile	10 0 0	—	—	—	—
300	Copper Mines' Co. of South Australia	150 £70 pd.]	—	—	—	—
15000	El Chico Silver Mining and Reduction Company	5 0 0	—	—	—	—
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—	—	—	—